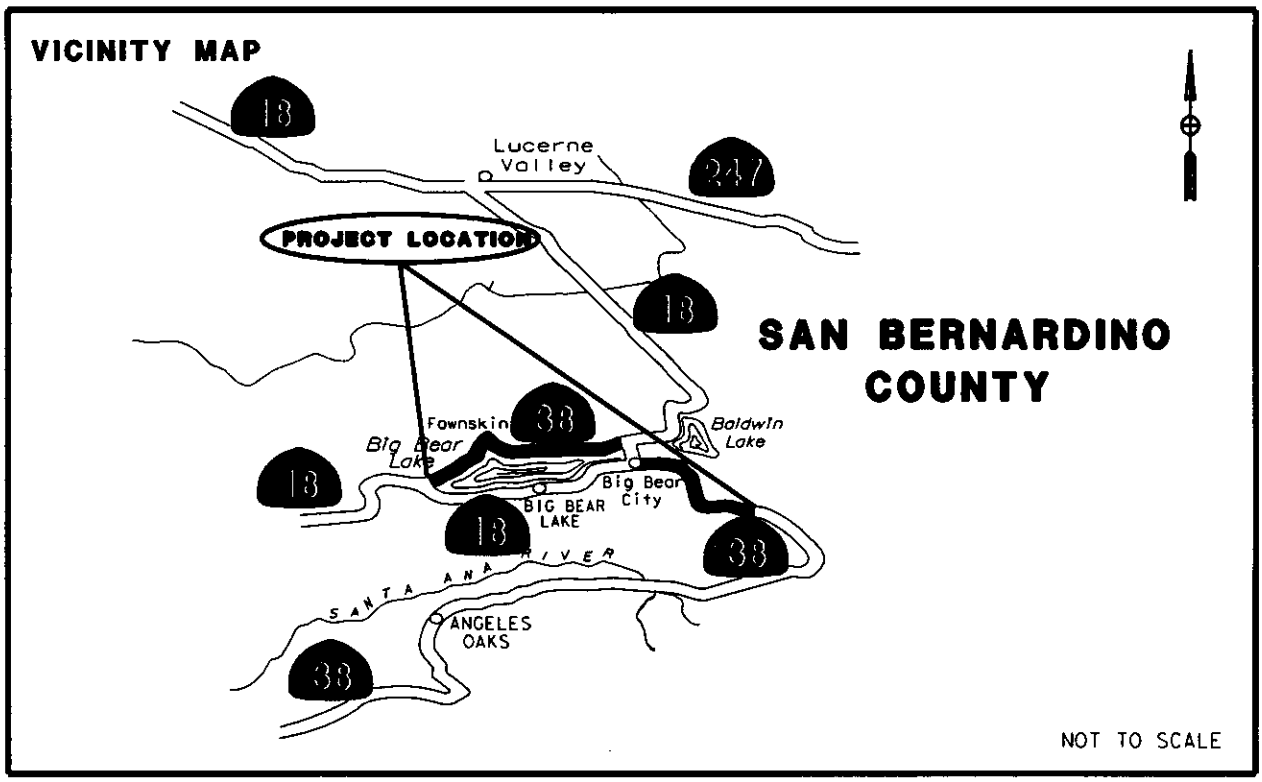
08-SBD-38-PM 47.50/53.34
& PM 54.35/59.36
AUGUST 2005
EA 0G800K

PROJECT STUDY REPORT



ON STATE ROUTE 38
AT VARIOUS LOCATIONS FROM ZACA DRIVE
TO SOUTH JUNCTION AT BIG BEAR DAM
IN THE COUNTY OF SAN BERNARDINO

APPROVAL RECOMMENDED: 9/1/05
EMAD MAKAR
PROJECT MANAGER

APPROVED BY: Patricia Romo 9-1-05
PATRICIA ROMO
ACTING DISTRICT DIRECTOR
DATE

08-SBD-38-PM 47.50/53.34
& PM 54.35/59.36

This Project Study Report has been prepared under the direction of the following registered Civil Engineer. The registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

John M Rogers
REGISTERED CIVIL ENGINEER

9-1-05
DATE

PROJECT STUDY REPORT

08-SBd-38-
PM 47.50/53.34, &
PM 54.35/59.36
08-312-0G800K
HB-42
Reline or Replace Existing Culverts

1. INTRODUCTION

The scope of the project outlined in this Project Study Report (PSR) consists primarily of relining or replacing the existing culverts in various locations on State Route 38 in the mountain areas of San Bernardino County. This project was initiated at the request of the Maintenance Division. Two alternatives are being considered for this project; 1) No Build 2) Reline or Replace Existing Culverts. The second alternative is estimated to cost $ 4,000,000 with the Right of Way (ROW) cost of $ 325,000. This project is classified as a Category 5 project as defined in the Project Development Procedures Manual (7th Edition revised 7/1/99, Part 2, Chapter 8 and Section 5) because of its minimal economic, social, and environmental significance. The total estimated cost for the proposed improvement is $5,000,000 including support cost. This project is eligible for programming in the 2006 State Highway Operation and Protection Plan as an HB42 – Protective Betterments Project.

2. BACKGROUND

State Route 38 (SR-38) begins at Interstate 10 (I-10) in the City of Redlands. It traverses the urban areas of Redlands, Mentone, Big Bear City, Fawnskin and Big Bear Lake. The total route length is 59.36 miles and is a two-lane conventional highway. The route provides vital transportation linkages to rural areas of the San Bernardino Mountains. The entire length of SR-38 lies within District 8. SR-38 is a major route from the eastern San Bernardino Valley to the San Bernardino Mountains recreational centers. The route carries high volumes of summer and winter recreational traffic. SR-38 is included in the Interregional Road System (IRRS) as an "Other Priority Route" between the east limits of the San Bernardino Urbanized Area and State Route 18, west of Big Bear Lake. The entire length of SR-38 is included in the State Scenic Highway System. The portion from 0.01 miles east of Southfork Campground (PM 31.0) to 2.9 miles south of State Lane (PM 46.6) is officially designated as a State Scenic Highway. The existing lanes are 12 feet wide and the shoulder width ranges from 0 to 2.0 feet.

3. NEED AND PURPOSE

As the State highway systems infrastructure ages, the need to rehabilitate or replace develops. A cursory review of the culverts along this section of SR-38 by our Video Inspection Unit indicates that majorities have severely rusted out inverts and are reaching the end of their designed service life. These culverts are in need of either lining or replacement. The decision to reline or replace will be determined during design as specific data for each culvert becomes available. Maintenance has requested that consideration of upsizing be given to each crossing; the Hydraulics unit and Maintenance are to be consulted on all of these matters. Rehabilitation or reconstruction of these culverts is necessary to maintain the integrity of the highway.

4. ALTERNATIVES

Alternatives under consideration for this project include the following:

1. No Build
2. Reline or replace existing culverts

Alternative 1 No-Build

This alternative would maintain the existing culverts in its current condition and there is no capital cost associated with this alternative. However, this alternative does not preclude the construction of future improvements. This alternative is not a viable option, since it would do nothing to improve the aging and deteriorating culverts.

Alternative 2 Reline or Replace Existing Culverts

In this alternative, it is proposed to reline or replace 112 culverts (Attachment A). The proposed improvement will require relatively small work areas on either side of the culvert crossing. There is no known project within the above-mentioned limits that may impact what is being proposed for this project. No additional Right of Way is required for this alternative. However, Temporary Construction Easements (TCE) may be required. The cost of this proposed alternative is estimated at $4,000,000 (Attachment B) not including support cost.

ANALYSIS OF PROPOSAL

In contrast with the No-Build alternative, the proposed improvement in Alternative 2 is intended to address the deficiencies of aging and deteriorating culverts.

5. SYSTEM PLANNING

The proposed project is consistent with statewide, regional and local planning goals, and will be coordinated with impacted governmental, regulatory and private agencies in the area to ensure consistency with specific goals and objectives. This project

should also be coordinated with Maintenance projects, which may not be included in the following list.

State Highway improvements along State Route 38 includes the following:

EA	LOCATION	DESCRIPTION
35844	PM 3.2/9.1	CAPM (roadway rehab, coldplane & overlay)
49850	PM 3.1/4.1	Widen shoulders, PCC curb, gutter & sidewalk
33630	PM 26.6	Replace bridge deck, upgrade bridge rail & bridge approach rail and slabs
35842	PM 9.32/9.63	Widen bridge and Upgrade bridge rail
0G620	PM 15.0/49.5	Grind 30mm and Overlay 45mm DGAC Type A

6. HAZARDOUS MATERIAL/WASTE

Based on Initial Site Assessment dated July 26, 2005 there is no aerial deposited lead (ADL) concern and there is low risk of potential hazardous waste involvement for this project.

7. TRANSPORTATION MANAGEMENT PLAN

The proposed improvements will be constructed within the existing Right of Way and the acquired Temporary Construction Easement (TCE). A Transportation Management Plan (TMP) has been developed that outlines measure to minimize traffic impacts during construction (Attachment E). The cost of the TMP has been estimated at $ 219,000. However, due to the limited data available at this time, we decided to use $400,000 for cost estimating purposes.

8. ENVIRONMENTAL CLEARANCE

A Mitigated Negative Declaration and Finding of No Significant Impact (ND/FONSI) is the anticipated environmental document for this proposed project (Attachment C).

The proposed improvement will not require acquisition of new Right of Way but rather Temporary Construction Easements (TCE) and no impacts on existing utilities is anticipated (Attachment D).

9. FUNDING/SCHEDULING

The following table is a summary of the estimated Person Years (PYs) required to complete the project according to the Person Year, Project Scheduling, and Cost Analysis (PYPSCAN) Program.

DISTRICT PY'S FISCAL YEAR					
	Year 05/06	**Year 06/07**	**Year 07/08**	**Year 08/09**	**Year 09/10**
PJD		0.89	2.61	0.04	
RWO	1.70	3.80	2.65	0.76	0.08
STD					
STC					
CON				0.44	3.18
Subtotal	1.70	4.69	5.26	1.24	3.26
Total Estimated PY'S = 16.15					

The following is a summary of the tentative schedule milestones for this project.

MILESTONES	Duration in months from the approval of the PSR
Approved PSR	Sep/2005
PA&ED	18
PS&E	33
R/W Certification	35
HQ Advertisement	40
Approved Construction	42
Complete Project	61

10. DISTRICT CONTACT

Name/Title	**Organization/Branch**	**Phone**
Emad Makar, Project Manager	Program Management	(909) 383-4978
John Rogers, Office Chief	Hydraulics	(909) 383-4624
Lydia Kean, Project Engineer	Hydraulics	(909) 383-4555

Attachment A

Culvert Locations

EA 0G800K CULVERT LOCATIONS		
ROUTE 38		
PM	Culvert size & type	R/W width from CL
1st segment PM 47.5-50.0		
47.560		
47.730		
47.771	trpl 24" CMP	
48.160		
48.230		
48.310		
48.350		
48.460		
48.600		
48.690		
48.780		
48.960		
49.050		
49.210		
49.390		
49.480		
49.519		
49.590		
49.960		
		subtotal = 19 culverts
2nd segment PM 50.0- 53.34		
50.080		
50.130		
50.220		
50.230		
50.350		
50.440		
50.650		
50.730		
50.830		
50.950		
51.020		
51.130		
51.410		
51.530		
51.670		
51.900		
52.080		
52.110		
52.220		
52.270		
52.300		
52.490		

EA 0G800K CULVERT LOCATIONS		
ROUTE 38		
PM	Culvert size & type	R/W width from CL
52.540		
52.600		
52.660		
52.680		
52.740		
52.820		
52.830		
52.940		
52.980		
53.020		
53.300		
53.340		
53.430		
		subtotal= 35 culverts
3rd segment PM 54.35-59.36		
54.350		
54.380		
54.410		
54.450		
54.500		
54.640		
54.710		
54.900		
54.940		
54.990		
55.130		
55.320		
55.390		
55.430		
55.690		
55.710		
55.780		
55.920		
55.990		
56.300		
56.337	18" CMP = 30'	
56.410		
56.710		
56.800		
56.870		
56.890		
57.060		
57.130		
57.200		

EA 0G800K CULVERT LOCATIONS		
ROUTE 38		
PM	Culvert size & type	R/W width from CL
57.237	18" CMP = 30'	
57.290		
57.400		
57.490		
57.540	18" CMP = 38'	
57.740		
57.870		
57.940		
57.960		
57.980		
57.990		
58.106	18" CMP = 48'	
58.160		
58.200		
58.270		
58.290		
58.450		
58.480		
58.599	log culvert = 16'	
58.631	24" CMP = 42'	
58.720		
58.770		
58.820		
58.868	18" CMP = 42'	
58.917	18" CMP = 36'	
59.050		
59.170		
59.197	18" CMP = 60'	
59.330	18" CMP = 30'	
		subtotal = 58 culverts
Total of 112 culverts (approx)		

Attachment B

Preliminary Cost Estimate Summary

Alternative 2

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

08-SBd-38

Type of Estimate	**PSR**
Program Code	**HB-42**
PM	**47.50/53.34 & 54.35/59.36**
EA	**0G800K**
PP No.	**2867**

PROJECT DESCRIPTION

Limits At various locations from Zaca Dr. to south junction at Big Bear Dam in the County of San Bernardino.

Proposed Improvement (Scope) Reline or Replace Existing Culverts

Alternative **2**

ROADWAY ITEMS	$	3,634,000
STRUCTURE ITEMS	$	0
SUBTOTAL CONSTRUCTION	$	3,634,000
RIGHT OF WAY (Escalated Value)	$	325,000
TOTAL PROJECT COST	$	3,959,000

Prepared By: **Lydia Kean** **Date** 30-Aug-05

Reviewed By: **John Rogers** **Date** 31-Aug-05

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

08-SBd-38

Type of Estimate PSR
Program Code HB-42
PM 47.50/53.34 & 54.35/59.36
EA 0G800K
PP No. 2867

I. ROADWAY ITEMS	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 1. Earthwork					
Roadway Excavation	0	CY	$0	$0	
Imported Borrow	0	CY	$0	$0	
Clearing & Grubbing	0	LS	$0	$0	
Develop Water Supply (5% -10% Roadway Excavation)	0	LS	$0	$0	
			Total Earthwork Section		**$0**
SECTION 2. Structural Section					
PCC Pavement	0	CY	$0	$0	
Asphalt Concrete	5402	ton	$227	$1,226,254	
Lean Concrete	0	CY	$0	$0	
Cement Treated Base	0	CY	$0	$0	
Aggregate Base	0	CY	$0	$0	
Aggregate Subbase	0	CY	$0	$0	
Permeable Material Blanket & Edge Drains	0	CY	$0	$0	
			Total Structural Section		**$1,226,254**
SECTION 3. Drainage					
Large Drainage Facilities	0	LF	$0	$0	
Storm Drains	3,675	LF	$98	$360,150	
Pumping Plants	0	LS	$0	$0	
Project Drain	0	LF	$0	$0	
Drainage	0	LS	$0	$0	
			Total Drainage Section		**$360,150**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

08-SBd-38

Type of Estimate PSR
Program Code HB-42
PM 47.50/53.34 & 54.35/59.36
EA 0G800K
PP No. 2867

	QUANTITY	UNIT	UNIT PRICE	UNIT COST	SECTION COST
SECTION 4. Specialty Items					
Install single Thrie Beam Barrier	0	LF	$0	$0	
Install Concrete Barrier Type 60	0	LF	$0	$0	
Remove Double Metal Barrier	0	LF	$0	$0	
Remove Type K-rail	0	LF	$0	$0	
Landscaping/Irrigation	0	LS	$0	$0	
Erosion Control	0	ACRE	$0	$0	
Slope protection	0	CY	$0	$0	
Barriers and Guardrails	0	LF	$0	$0	
Hazardous Waste Work	0	LS	$0	$0	
Storm Water Pollution Program	0	LS	$0	$0	
Total Specialty Items					**$0**
SECTION 5. Traffic Items					
Electrical	0	LS	$0	$0	
Lighting	0	LS	$0	$0	
Traffic Signals	0	EA	$0	$0	
Permanent Signing	0	LS	$0	$0	
Traffic Control System	1	LS	$400,000	$400,000	
Transportation Management Plan	1	LS	$400,000	$400,000	
Total Traffic Items					**$800,000**
SUBTOTAL SECTIONS 1-5					**$2,386,404**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

08-SBd-38

Type of Estimate PSR
Program Code HB-42
PM 47.50/53.34 & 54.35/59.36
EA 0G800K
PP No. 2867

					UNIT COST	SECTION COST
SECTION 6. Minor Items						
Subtotal Sections 1-5		$2,386,404	x	8%	$190,912	
			TOTAL MINOR ITEMS			$190,912
SECTION 7. Roadway Mobilization						
Subtotal Sections 1-5		$2,386,404				
Minor Items		$190,912				
	SUM	$2,577,316	x	8%	$206,185	
			TOTAL ROADWAY MOBILIZATION			$206,185
SECTION 8. Roadway Additions						
Supplemental						
Subtotal Sections 1-5		$2,386,404				
Minor Items		$190,912				
	SUM	$2,577,316	x	8%	$206,185	
Subtotal Sections 1-5		$2,386,404				
Minor Items		$190,912				
	SUM	$2,577,316	x	25%	$644,329	
			TOTAL ROADWAY ADDITIONALS			$850,514
			TOTAL ROADWAY ITEMS **(Total of Sections 1-8)**			$3,634,016
			ROUND OFF TO :			**$3,634,000**

The 8% includes the anticipated cost for Water Pollution Control.

Estimate Prepared By : Lydia Kean **Phone #** (909) 383-4555 **Date** 30-Aug-05

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

08-SBd-38

Type of Estimate PSR
Program Code HB-42
PM 47.50/53.34 & 54.3
EA 0G800
PP No. 2867

II. STRUCTURES ITEMS

	No.1	No.2	No.3	No.4
Bridge Name				
Structure Type				
Width in meters-out to out	0	0	0	0
(in feet)	0	0	0	0
Span Length in meters	0	0	0	0
(in feet)	0	0	0	0
Total Area in square meters	0	0	0	0
(in square feet)	0	0	0	0
Footing Type (pile/spread)	---	---	---	---
Cost Per square meters	$0	$0	$0	$0
(Per square feet)	0	0	0	0
SUBTOTAL FOR STRUCTURE	$0	$0	$0	$0
	0			
Related Ramps	$0	$0	$0	$0
Railroad Related Cost	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0
10% Mobilization	$0	$0	$0	$0
25% Contingency	$0	$0	$0	$0
Remove old Bridge	$0	$0	$0	$0
TOTAL COST FOR STRUCTURE	$0	$0	$0	$0

TOTAL STRUCTURES ITEMS $0

COMMENTS:

ROUND OFF TO : **$0**

Estimate Prepared By : **Phone #** **Date**

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

08-SBd-38

Type of Estimate PSR
Program Code HB-42
PM 47.50/53.34 & 54.35/59.36
EA 0G800K
PP No. 2867

III. RIGHT OF WAY

Right of Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Value	Escalated Rate	Escalated Value
Acquisition, including Excess Lands, Damages and Goodwill	$278,208	4%	$325,464
Utility Relocation (State share)	$0	4%	$0
Clearance/Demolition	$0	4%	$0
RAP	$0	4%	$0
Title and Escrow Fees	$0	4%	$0
Construction Contract Work			$0
TOTAL RIGHT OF WAY (CURRENT VALUE) :	**$278,208**		
TOTAL ESCALATED VALUE :			**$325,464**

ROUND OFF TO :	**$325,000**

Estimate Prepared By : Vito Santamat **Phone #** 383-4356 **Date** 18-Aug-05

Attachment C

Preliminary Environmental Analysis Report

CLARIFICATION

When the request for Right of Way (ROW) Data Sheet and Preliminary Environmental Analysis Report (PEAR) were sent out, there were only two Project Study Report Expenditure Authorizations (EA), 0G690K & 0G800K. Subsequently, we've had to reorganize the Project Study Reports from two EA's which have 7 sub EA's to three EA's with no sub EA's. Because of this, EA 0G691K was added to the two original EA's to cover part of Route 18 (PM 17.52/17.90), Route 138 (PM 37.20/37.80), which was originally under 0G690K and Route 2 (PM 0.0/3.70), which was originally under 0G800K. Due to time constraints, the original request was processed since there were no changes to the route limits.

In relation to the above-mentioned changes you will find that for EA 0G691K there are two ROW Data Sheets and two Preliminary Environmental Analysis Reports.

WBS 150.20.10 INITIAL SITE ASSESSMENT (ISA) CHECKLIST

----------PROJECT ENGINEER MUST FILL OUT ALL INFORMATION THROUGH # 2 BELOW----------

DATE: 06/20/05

PROJECT INFORMATION

District 8 County SBd Route 2 & 38 KiloPost (PM) KP 0.0-5.95 & KP 76.44-85.84, KP 87.46-95.53 E.A 0G800K

Description of Work: Drainage Improvements consisting of relining or replacement of existing culverts. The work involve is anticipated to impact approximately 15 feet beyond the inlet and outlet of these existing culverts.

Project Engineer Lydia Kean Telephone 383-4555

Environmental Coordinator (if known) JASON WALSH Telephone (383-7555

DATE ISA NEEDED 09-01-05

Attach the project location map and an aerial photo to this checklist to show the location of proposed R/W and all known and/or potential hazardous waste sites.

1. Project Features: New R/W? no Excavation? yes Railroad Involvement? Not known
   Structure Demolition/Modification? Utility Relocation? no
2. Project Setting: Rural yes Urban
   Current Land Uses: Rural
   Adjacent Land Uses: Rural and adjacent mountain residential communities
   (Industrial, light industry, commercial, agriculture, residential, other [describe other])

----------THE REMAINDER OF THIS FORM TO BE FILLED OUT BY DISTRICT HAZARDOUS WASTE COORDINATOR ONLY----------

3. Check Federal, State, and local environmental and health regulatory agency records as necessary to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets as needed to provide all information available pertinent to the proposed project. IS PROJECT
4. AFFECTING SITES LISTED ON CORTESE LIST? NO IF YES, DESCRIBE SITE:
5. Conduct Field Inspection Date

Storage Structures/Pipelines:				Contamination: (spills, leaks, illegal dumping, etc)		Hazardous Materials: (asbestos, lead, etc.)	
UST's				Surface Staining		Buildings	
Surface tanks				Oil Sheen		Sprayed-on Fireproofing	
Sumps		Ponds		Odors		Pipe Wrap	
Drums		Basins		Vegetation damage		Friable Tile	
Transformers				Other		Acoustical Plaster	
Landfill						Serpentine	
Other						Paint	Other

Other comments and/or observations: No aerial deposited lead (ADL) concerns.
No hazardous waste concerns.

ISA DETERMINATION:

Does the project have potential hazardous waste involvement? LOW RISK

If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Preliminary Site Investigation? If yes, explain, and give estimate of additional time required:

ISA CONDUCTED/CONCURRED BY: Rosana Lee DATE: 7-26-05

Caltrans Metric

Preliminary Environmental Analysis Report

Project Information District 08 County SBD Route 02 & 38 EA 0G800K
Post Mile 0.0/3.7 [SR02] 47.50/53.34 & 54.35/59.36 [SR38]

Project Title: Relining or replacing existing culverts on SR 02 and SR 38 in San Bernardino County

Project Manager Emad Makar Phone # 383-4978

Project Engineer Lydia Kean Phone # x4555

Environmental (Manager) Office Chief Boniface Udotor Phone # 909-383-1387

Environmental Planner Generalist Unknown Phone # _____

Project Description

Purpose and Need: The proposed project will rehabilitate or replace aging culverts at various locations on State Route 2 and State Route 38 in San Bernardino County. The culverts have reached their design service life and are deteriorated

Description of work: The drainage improvements will consist of relining or replacement of existing culverts at various locations on SR-2 and SR-38. Work will include rehabilitating or replacing existing culverts and approximately 15 feet of clearance beyond the current culvert inlets and outlets.

Alternatives: No Build Alternative: Culverts will remain in disrepair and ultimately fail. Build Alternative: All identified culverts on SR-2 and SR-38 will either be rehabilitated or replaced per above description of work.

Anticipated Environmental Approval

	CEQA		NEPA
☐	Categorical/Statutory Exemption	☐	Categorical Exclusion
✔	Negative Declaration / focused ND	✔	Finding of No Significant Impact
☐	Environmental Impact Report	☐	Environmental Impact Statement

Environmental Doc. type - the Dept. anticipates that under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) the appropriate environmental document for this project will be an Initial Study/Environmental Assessment (IS/EA). The environmental documentation determination and required technical studies/reports determination will be made when the project is environmentally scoped. Bio - all required Biological studies shall be completed. Cultural - all required Cultural studies shall be completed. Env. Eng. - need to do a Haz. Waste Investigation (ISA), and Noise/Air/Water studies may be required.

PSR Summary Statement

An initial Study/Environmental Assessment (IS/EA) will be required in compliance with Division 13, Public Resources Code (State), and 42 U.S.C. 4332(2) (Federal). A Mitigated Negative Declaration and Finding of No Significant Impact (ND/FONSI) is anticipated.

Anticipated Environmental constraints on this project include but are not limited to those in the following table:

Resource	Study Area / Impact
Southwester Willow Fly Catcher & Arroyo Toad	Project limits of construction will require formal Section 7 consultation with USFWS and 2080.1 concurrence from CA DFG.
Visual Resources	Removal of vegetation, slope modification and disturbed areas will require visual assessment and a scenic resources evaluation. Mitigation will be required for visual impacts and revegetation
Right of Entry Permits	Permission to enter private and public properties to conduct environmental field work will need to be acquired prior to initiating 165 WBS activities.
Permits	The project will require 404, 401 & 1602 permits from the ACOE, RWQCB and DFG, respectively.
Migratory Bird Treaty Act	No Vegetation can be removed from February 15-September 15
Outside Federal Agencies	Many of the project locations may be within ACOE jurisdictional washes and or on USFS land. Coordination and/or approval will be required for this project.

Special Considerations

Biological

Formal consultation with US Fish and Wildlife Service for southwestern willow flycatcher and its designated critical habitat will be required. The existing culverts should be inspected for the presence/absence of known sensitive species that occur in the area. (CNDDB, 2005) Protocol surveys for willow flycatcher and arroyo toad should be completed in the spring/summer season.

Visual

Route 2 and 38 are eligible for designation as a California Scenic Highways. These routes have a high number of sensitive viewers traveling to and from recreations areas within SBNF. A scenic resource evaluation and visual impact assessment will be required to assess potential visual impacts from the proposed drainage improvements. Aesthetic treatments to excavated slopes and drainage facilities may be required to mitigate visual impacts. Design must work to minimize impacts

Wetlands

A delineation of jurisdictional wetlands and waters of the United States needs to be done. Executive Order 11990 requires an avoidance alternative analysis for wetland impacts unless there is no practicable alternative available. Direct and temporary impacts to waters of the U.S. and wetlands from the project need to be quantified.

Anticipated Project Mitigation (for standard PSR only)

Mitigation for temporary and permanent impacts to sensitive biological resources (wetlands, riparian vegetation, listed plants and animals) will be required. Mitigation for impacts to waters of the State may be required. Construction windows may be required to minimize disruption of nesting season. For this project, mitigation could include restricted construction scheduling, habitat enhancement, habitat restoration, or habitat replacement; the cost of which is estimated to be around $250,000. Additionally, during negotiations with resource agencies additional mitigation and/or restriction may be required to obtain permits.

Disclaimer

This report is not an environmental document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Study Report. Changes in project scope, alternatives, or environmental laws will require a re-evaluation of this report.

Reviewed by:

Environmental Office Chief — Date: 8-18-05

Project Manager — Date: 8/23/05

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Community Impact Study	☐	✔	☐
Farmland	☐	☐	✔
Section 4(f) Evaluation	☐	✔	☐
Visual Resources	✔	☐	☐
Water Quality	☐	✔	☐
Floodplain Evaluation	✔	☐	☐
Noise Study	☐	☐	✔
Air Quality Study	☐	☐	✔
Wild and Scenic River Consistency	☐	✔	☐
Cumulative Impacts	☐	✔	☐
Storm Water Data Report	☐	✔	☐
Cultural			
ASR	✔	✔	☐
HRER-Archaeology	✔	✔	☐
HRER-Architecture	✔	✔	☐
HPSR	✔	✔	☐
Section 106 / SHPO	☐	✔	☐
Native American Coordination	☐	✔	☐
Paleontology	☐	✔	☐
Section 4(f) Evaluation	✔	✔	☐
Visual Resources	✔	☐	☐
Other			
Finding of Effect	☐	☐	☐
Data Recovery Plan	☐	☐	☐
Hazardous Waste			
ISA (Additional)	✔	☐	☐
PSI	☐	✔	☐
Other			
_____	☐	✔	☐
Biological			
Endangered Species (Federal)	✔	☐	☐
Endangered Species (State)	☐	✔	☐
Species of Concern (CNPS, USFS, BLM, S, F)	✔	☐	☐
Biological Assessment (USFWS, NMFS, State)	✔	☐	☐
Wetlands	✔	☐	☐
Invasive Species	✔	☐	☐
Natural Environment Study	✔	☐	☐
NEPA 404 Coordination	☐	☐	✔
Other			
USFS Coordination	☐	✔	☐

Permits

401 Permit Coordination	✔	❑	❑
404 Permit Coordination	✔	❑	❑
1601 Permit Coordination	✔	❑	❑
City/County Coastal Permit Coordination	❑	❑	✔
State Coastal Permit Coordination	❑	❑	✔
NPDES Coordination	❑	✔	❑
US Coast Guard (Section 10)	❑	❑	✔
Caltrans Permit (NPDES) (Already issued)	❑	✔	❑
General Permit (NPDES) (Already issued)	❑	✔	❑

Discussion of Technical Review

Socio-economic and Community Effects. Based on the information provided for the PEAR The project is not expected to have any effects on the local community or the economy. If after further design & project development road closures or detours are required a community impact assessment may be required.

Farmlands. Based on the information provided for the PEAR no impacts to farmlands or Williamson Act lands are anticipated at this time.

4(f) Impacts. Based on the information provided for the PEAR, no 4(f) impacts are anticipated at this time. If after further design/project development it is determined that there will be impacts to 4(f) resources then a 4(f) evaluation will be required.

Visual Effects. Route 2 and 38 are eligible for designation as a California Scenic Highways. These routes have a high number of sensitive viewers traveling to and from recreations areas within SBNF. A scenic resource evaluation and visual impact assessment will be required to assess potential visual impacts from the proposed drainage improvements. Aesthetic treatments to excavated slopes and drainage facilities may be required to mitigate visual impacts. [400 hours should be requested for landscape under WBS Code 165 for this project]

Water Quality and Erosion. The Caltrans Statewide Storm Water Management Plan (SWMP) requires Project Development personnel to assess the need for storm water Best Management Practices (BMPs) and incorporate these BMPs as appropriate during the initial planning and design phases for all Caltrans projects. A Storm Water Data Report (SWDR) is a planning document to aid in determining if Treatment, Design Pollution Prevention and temporary construction BMPs should be incorporated into a project. The SWDR form in Appendix E of the Storm Water Project Planning and Design Guide should be completed; if it is determined that specific BMPs are appropriate and feasible, preliminary design should be performed to determine size and location. Costs and additional R/W (for BMPs) will also be considered at this time. This information should be included in the Preliminary Environmental Analysis Report (PEAR). The site should be evaluated for potential water quality impacts associated with the project. If site dewatering is required for new construction, a dewatering plan is required. Site access for construction must be included in any water quality analysis.

Floodplain. Several areas fall within FEMA Flood Plain Zone A. Although replacement and/or renovation of existing culverts should not raise the water surface enough to require a Letter of Map Revision (LOMR), it is possible that the governing agency may require the preparation of a floodplain study to demonstrate this at any or all of these locations.

Air This project was reviewed by the District 8 Environmental Engineering Branch on August 2, 2005. It was determined that this project is exempt from all emissions analyses because it is a Table 1 project listed in the Carbon Monoxide (CO) Protocol (40 CFR 93.126). **However, the project must still comply with the appropriate AQMD, Rule 403 for South Coast Air Quality Management District (SCAQMD) or Rule 403/403.2 for the Mojave Desert Air Quality Management District (MDAQMD), during active construction operations capable of generating fugitive dust.**

Noise This project was reviewed by the District 8 Environmental Engineering Branch on July 27, 2005. Since this project is not a "Type 1 project," no noise study is required.

Wild and Scenic River. A review of the National Wild and Scenic Rivers System Database and the California Wild and Scenic Rivers Database indicate there are no designated rivers within the project limits as of 7/7/2006. The databases should be reviewed again during the environmental process to ensure no new rivers within the project are have been designated.

Cultural Resources. An archeological survey will be required for the project. The proposed Area of Potential Effect (APE) must include all access roads, work areas and staging areas beyond the existing paved highway. A historic survey of resources related to... may be required. Any subsequent changes in project scope may require additional archaeological or historical review.

- **Assumptions.** The project description is vague to include maintenance activity on scores of unidentified culverts over a large stretch of highway. The most practical means of making preliminary analysis for cultural studies is to assume that the project footprint include the entire roadway and all land for approximately 20 meters from the road's edge. Though this may result in an overestimate of time and resources, to do otherwise may result in underestimation. It is assumed that the issues involving right-of-way, proscribed rights, and requirements of involved government landowners such as the National Forest may impede progress and make the undertaking more time consuming. Without detailed project plans, the degree to which this holds true is incalculable. It is assumed that the project will not require additional staging areas, materials storage, etc. If archaeological resources are found, particularly, if they are unavoidable during construction, additional archaeological work will be required.

Native American Coordination. Coordination with the Native American Heritage Commission and local tribes will be required.

Hazardous Waste/Materials. An Initial Site Assessment (ISA) was prepared on 7/26/05 to address the potential for hazardous waste. Pending sampling for ACM and ADL, additional specs and/or a new ISA may for the project may be required. However, based on the information known at this time the hazardous waste coordinator identified the project as "Low Risk" for hazardous waste involvement.

Biological Resources. This project may affect sensitive biological resources. Formal consultation with US Fish and Wildlife Service on the southwestern willow flycatcher and its designated critical habitat will be required. The existing culverts should be inspected for the presence/absence of known sensitive species that occur in the area. (CNDDB, 2005) Protocol surveys for willow flycatcher and arroyo toad should be completed in the spring/summer season.

Wetlands. A delineation of jurisdictional wetlands and waters of the United States needs to be done. Executive Order 11990 requires an avoidance alternative analysis for wetland impacts unless there is no practicable alternative available. Direct and temporary impacts to waters of the U.S. and wetlands from the project need to be quantified.

Invasive Pest Plant Species. Executive Order 13112 requires that any Federal action may not cause or promote the spread or introduction of invasive species. This project will require protected measures to control the spread of invasive species.

Right-of-Way Relocation or Staging Area. No new Right-of-Way is indicated for this project. Material sites and disposal sites are indicated, but not identified. These areas, which must be identified prior to initiating environmental studies, will require complete environmental evaluation as part of this project.

Mitigation. Mitigation for temporary and permanent impacts to sensitive biological resources (wetlands, riparian vegetation, regulated plants and animals) will be required. Mitigation for impacts to waters of the State may be required. Construction windows may be required to minimize disruption of nesting season. For this project, mitigation could include restricted construction scheduling, habitat enhancement, habitat restoration, or habitat replacement; the cost of which is estimated to be around $250,000.

Permits. Permits from the State Department of Fish and Game (1602), U. S. Army Corps of Engineers (a nationwide 404 Permit may be required because wetland/waters impacts may exceed the threshold acreage), and subsequent Regional Water Quality Control Board Certification (401) may be required.

Coastal Zone. This project is not within state coastal jurisdiction.

List of Preparers

Hazardous Waste Review by	Roseana Roa	Date 7/26/05
Air Quality Reviewed by	Meenu Chandon	Date 8/01/05
Noise Reviewed by	Mike Goodhue	Date 7/27/05
Biological Review by	Quyen Tang	Date 8/4/2005
Cultural Review by	Kurt Heidelberg	Date 7/18/2005
Community Impact Review	Jason Walsh	Date 7/25/2005
Visual Review by	Cathy Jochai	Date 7/1/2005
Floodplain Review by	Roy King	Date 7/27/2005
Water Quality and Erosion Review by	Alan Nakano	Date 7/25/05

Attachment A - PEAR Mitigation and Compliance Cost Estimate

Dist.-Co.-Rte.-KP/PM: 08-Sbd-SR-2&38-Various (see above) EA: 0G800K

Project Description: Relining or replacing existing culverts on SR 2 & 38 in San Bernardino County

Person completing form/Dist. Office.: Jason Walsh

Project Manager: Emad Makar Phone number: 383-4978

Date: 8/18/05

	Mitigation			Compliance
	Project Feature[1]	Enviro. Obligation[2]	Statutory Require.[3]	Permit & Agreement[4]
Fish & Game 1601 Agreement			1	1
Coastal Development Permit				
State Lands Agreement				
NPDES Permit		**5		
COE 404 Permit- Nationwide			1	1
COE 404 Permit- Individual				
COE Section 10 Permit				
COE Section 9 Permit				
Other:				
Endangered species mitigation		100		
Noise attenuation				
Special landscaping				
Archaeological				
Biological		100		
Historical				
Scenic resources	70			
Wetland/riparian		50		
Other:				
Revegetation				
TOTAL (Enter zeros if no cost)	320	250	2	2

- Costs are to be reported in $1,000's.
- Costs are to include all costs to complete the commitment including: 1)capital outlay and staff support; 2) cost of right-of-way or easements; 3) long-term monitoring and reporting; and 4) any follow-up maintenance.

[2] Mitigation that Caltrans would not normally do but is required by conditions of a permit or environmental agreement.
[3] Mitigation that Caltrans would not normally do and is not required by a permit or Enviro. Agreement, but is required by a law.
[4] Non-mitigation Caltrans would not normally do but is required by conditions of a permit or agreement.

*Prepare a separate form for each practicable alternative in the PSR.

- ** Costs for "Enviro. Obligation" should consist of permanent Treatment, Design Prevention Pollution BMPs and temporary construction BMPs.

    - Cost for Treatment BMPs cannot be calculated with the current information. A Water Quality Volume (WQV) must be calculated. See Section 2.4.2.2 of the Project Planning & Design Guide for guidance. Costs for Treatment BMPs, based on WQV are available from Table F-6.

    - Permanent Design Prevention Pollution BMPs are identified in the PPDG. Costs for Design Prevention Pollution BMPs can be obtained from the "Contract Cost Data Base" on the District's Design website.

    - Costs for temporary construction BMPs, at the PID phase, which are identified above, were calculated as a percentage of the total estimated project cost. Completing Checklist CS-1 can more accurately identify some Temporary Construction BMPs. Costs can be obtained from Table F-5 in Appendix E.

    - Potential issue includes work in Big Bear Watershed which could escalate costs.

ATTACHMENT B - 2006 SHOPP PEAR Resources by WBS Code - Workplan

EA: 0F800K County: Sbd | Route: SR-2 & 38 | PM: Various

Description: reline and/ro replace culverts

WBS Task Activity Code	Senior/Gen	Env. Mgt.	Senior/ Biology	Senior/ Cultural	Noise/Air/Haz Waste	NPDES Work by Design	Storm Water	Hydrology	Land scape	Total
Assigned Unit		170	168	178	332		242	215	216	
Project Management										
100.05 - Project Management PID Component		7				30	10			47
100.05.05 – Proj. Init. & Plng.		2								2
100.05.10 – PID Exec. & Ctrl./PDT (PID)		4				10	10			24
100.05.15 – PID Closeout										-
100.10 - Project Management PA & ED Component						20	10			30
100.10.05 – PA&ED Init. & Plng.		4								4
100.10.10 – PA&ED Exec. & Ctrl./PDT (PA & ED)						10	10			20
100.10.15 – PA&ED Closeout										-
100.10.20 – Project Shelving (PA&ED)		2								2
100.10.25 – Project Unshelving (PA&ED)		2								2
100.10.30 – Prep/Updt Admin Record PA&ED		2								2
100.15 - Project Management PS&E Component						20	10			30
100.15.05 – PS&E Init. & Plng.		50								50
100.15.10 – PS&E Exec. & Ctrl./PDT (PS&E)		2				10	10			22
100.15.15 – PS&E Closeout										-
100.15.20 – Project Shelving (PS&E)										-
100.15.25 – Project Unshelving (PS&E)										-
100.15.30 – Prep/Update Admin Record PS&E										-
100.20 - Project Management Construction Comp.										-
100.20.05 – Const. Init. & Plng.		50								50
100.20.10 – Const. Exec. & Ctrl.										-
100.20.15 – Const. Closeout										-
100.20.20 – Project Shelving (Construction)										-
100.20.25 – Project Unshelving (Construction)										-
100.20.30 – Prep/Update Admin Record Const										-
100.25 - Project Management R/W Component										-
100.25.05 – RW Init. & Plng.										-
100.25.10 – RW Exec. & Ctrl.										-
100.25.15 – RW Closeout										-
100.25.20 – Project Shelving (Right of Way)										-
100.25.25 – Project Unshelving (Right of Way)										-
100.25.30 – Prep/Update Admin Record R/W										-
Total Project Management	-	125	-	-	-	100	60	-	-	285
Project Initiation Document (PID)										
150.05 - Define and Assess	20									20
150.05.05 - Obtain/Review Exsisting Data	10									10
150.05.20 - Define Storm Water Design Issues/SWDR						20	10			30
150.10 - Identify Potenbal BMPs/SWDR						10	20			30
150.10.05 - Meet with RWQCB						10	10			20
150.15 - Analyze Project Alts/Select BMPs/SWDR						10	10			20
150.15.55 - Prepare Preliminary Project Cost Est						5	10			15
150.20 - PEAR	50	100		20			5			175
150.20.05 - Perform Initial Noise Study										-
150.20.10 - Perform Haz Waste Invest. (ISA)										-
150.20.15 - Perform Landscape/Aesthetic Analysis										-
150.20.20 - Perform Initial NEPA/404 Coord.										-
150.20.25 - Perform Initial Biology Study			32							32
150.20.30 - Perform Initial Records/Lit. Search for Cult Res.										-
150.20.40 - Perform Initial CIA, Land Use & Grov	5									5
150.20.45 - Perform Initial Air Quality Study					8					8
150.20.50 - Perform Initial Water Quality Studies										-
150.20.55 - Perform Initial Floodplain Studies										-
150.20.60 - Prepare Preliminary Env. Analysis										-
150.20.65 - Perform Initial Paleontology Study										-
150.20.70 - Perform Initial Native American Coordination										-
150.25 - Review PID	10	8				10	5			33
Total PID	95	108	32	20	8	65	70	-	-	398
Perform Preliminary Engineering Studies and Prepare Draft Project Report										
160.05 - Review and Update Project Info.	10					10	10			30
160.05.05 – Review Approved PID	10									10
160.05.10 – Review Geotechnical Information	10									10
160.05.20 – Review Traffic Data & Forecasts	10									10
160.05.30 – Review Project Scope	10									10
160.10 - Review BMP Selection Based on Env. S	10					40	20			70
160.10.20 – Perform Value Analysis										-
160.10.25 – Perform Hydraulics/Hydro Study										-
160.10.30 – Dev Hwy Planting Des Concepts										-

WBS Task Activity Code	Senior/Gen	Env. Mgt.	Senior/ Biology	Senior/ Cultural	Noise/Air/Haz Waste	NPDES Work by Design	Storm Water	Hydrology	Land scape	Total
160.10.20 – Prepare Draft Project Report	10									10
160.15.05 - Prepare Cost Est. for Alternatives						10	5			15
160.15.25 – Circ, Rev & App Draft PR	10	5								15
160.30 – Dev Env. Study Request/Obtain Rights	5	10								15
Total Perf Pre Eng Studies	85	15	-	-	-	60	35	-	-	195
Perform Environmental Studies and Prepare Draft Environmental Document										
165.05 - Perform Env. Scoping & Select Alter. F	50									50
165.05.05 – Rev Project Information	10	25								35
165.05.10 – Pub & Agency Scoping	10	5								15
165.05.15 – Select Alt for Fut Study	15	5								20
165.05.20 – Maps for Env Evaluation	5		40							45
165.10 - Perform General Env. Studies	10									10
165.10.05 – Surveys & Map for Study										-
165.10.10 – Obtain Rights of Entry	10									10
165.10.15 – CIA, Land Use & Growth	50									50
165.10.20 - Perform Visual Impact Analysis	10								400	410
165.10.25 – Noise Study	10									10
165.10.30 – Air Quality Study	10				8					18
165.10.35 – Water Quality Studies	10					10	30			50
165.10.40 – Energy Studies	10									10
165.10.45 – Sum Geotech Report	20									20
165.10.50 – Site Investigation HW	10									10
165.10.60 - Prepare Floodplain Evaluation Repo	10							100		110
165.10.65 – Paleontology Study										-
165.15 - Perfrom Biological Studies	5									5
165.15.05 – Biological Assessment	20		480							500
165.15.05 - Update Preliminary Project Cost Est. (Stormwater)										-
165.15.10 – Wetlands Study	10		40							50
165.15.15 – Resource Agency Coord	10		40							50
165.15.20 – NES Report	10		480							490
165.20 - Perform Cultural Resource Studies										-
165.20.05 – Archaeology Survey				16						16
165.20.05.05 – Prepare APE /Study Area Map				24						24
165.20.05.10 – Conduct NA Consultation										-
165.20.05.15 – Perform Records Search				16						16
165.20.05.20 – Conduct Field Survey				40						40
165.20.05.25 – Prepare ASR				40						40
165.20.10 – Perform Extended Phase 1 Archy Studies										-
165.20.10.05 – Conduct NA Consultation				20						20
165.20.10.10 – Prepare Extended Phase 1 Proposal										-
165.20.10.15 – Conduct Field Investigation										-
165.20.10.20 – Analyze Materials										-
165.20.10.25 – Prepare Report										-
165.20.15 – Phase II Archy Studies										-
165.20.15.05 – Conduct NA Consultation										-
165.20.15.10 – Prepare Phase II Proposal										-
165.20.15.15 – Conduct Field Investigation										-
165.20.15.20 – Analyze Materials										-
165.20.15.25 – Prepare Report										-
165.20.20 – Hist & Architect Studies										-
165.20.20.05 – Prepare Prelim APE/SAM										-
165.20.20.10 – Prep Hist Res Eval Rpt - Archy				40						40
165.20.20.15 – Prep Hist Res Eval Rpt - Arct				80						80
165.20.20.20 – Prepare Bridge Evaluation				40						40
165.20.25 – Cultural Res Comp Docs										-
165.20.25.05 – Prepare Final APE Maps				10						10
165.20.25.10 – Perform PRC 5024.5 Consult										-
165.20.25.15 – Prep HPSR/Det Elig/HRCR				24						24
165.20.25.20 – Prep Finding of Effect										-
165.20.25.25 – Prep Archy Data Recovery Pln										-
165.20.25.30 – Prepare MOA										-
Perform Environmental Studies and Prepare Draft Environmental Document (Continued)										
165.25 - Prepare & Approve DED	50									50
165.25.05 – Prepare DED	800	10								810
165.25.10 – 4(f) Evaluation	75			40						115
165.25.15 – CE/CE Determination										-
165.25.20 – Peer & Other Reviews	100			10						110
165.25.25 – Obtain Approval to Circ	100									100
165.25.30 – Perform Env Coordination	100			20						120
Total Env Studies & Prep DED	1,530	45	1,080	420	8	10	30	100	400	3,623
Circulate Draft Environmental Document and Select Preferred Project Alternative										
175.05 - Circulate DED	300									300
175.05.05 – Master Dist & Inv Lists	20	4								24
175.05.10 – Not Pub Hear & Avail	10	4								14

WBS Task Activity Code	Senior/Gen	Env. Mgt.	Senior/ Biology	Senior/ Cultural	Noise/Air/Haz Waste	NPDES Work by Design	Storm Water	Hydrology	Land scape	Total
175.05.15 – Pub & Circulate DED	150	10								160
175.05.20 – Fed Const Det (Coastal)										-
175.10 - Public Hearing	40									40
175.10.05 – Need for Pub Hearing	10									10
175.10.10 – Pub Hearing Logistics	50									50
175.10.15 – Displays for Pub Hearing	50									50
175.10.20 – Not Pub Hear & Avail	20									20
175.10.25 – Review Map Displays	10									10
175.10.30 – Display Pub Hear Maps	10									10
175.10.35 – Hold Public Hearing	10									10
175.10.40 – Dist Rec or Pub Hearing	100									100
175.15 – Res to Pub Hear Comments	200									200
175.20 – Select Preferred Alternative	20									20
Total DED & Preferred Alt	1,000	18	-	-	-	-	-	-	-	1,018
Prepare and Approve Project Report and Final Environmental Document										
180.05 - Prepare and Approve PR						10	10			20
180.05.05 - Update Draft PR										-
185.05.10 – Rev & App Project Rep	5	6				10	30			51
180.10.05 – Prep & Approve FED	300	4								304
180.10.05.05 - Circulate for Review	110									110
180.10.05.10 – Rev due to Review Comments	75									75
180.10.05.15 – Section 4(f) Evaluation	50									50
180.10.05.20 – Findings Report										-
180.10.05.25 – Statement of Overriding Consid										-
180.10.05.30 – Prepare CEQA Certification	20									20
180.10.05.35 – FHWA and Approval	300									300
180.10.05.40 – Section 106 Cons & MOA										-
180.10.05.45 – Conduct Section 7 Consult			40							40
180.10.05.50 – Finalize Section 4(f) Statement	40									40
180.10.05.55 – Prep Floodplain Only PAF										-
180.10.05.60 – Prep Wetlands Only PAF			40							40
180.10.05.65 – Coord Section 404 Permit			20							20
180.10.05.70 – Finalize Mitigation Measures			20							20
180.10.10 – Public Dist of FED										-
180.10.10.05 – Resp to Comments on FED										-
180.15 - Complete Environmnetal Compliance										-
180.15.05 – Prep & App ROD (NEPA)	50									50
180.15.10 – Prep & File NOD (CEQA)	40									40
180.15.20 – Prep/Update Env Commitments	40	10								50
185.05 - Review/Update Information (30% Cons	20									20
185.05.05 - 30% Constructability Review	10									10
185.05.10 - Rev. and Appr Project Report	10									10
185.15 - Perform Preliminary Design						50	30			80
185.20 - Obtain Engineering Reports						5	5			10
Total App PR & FED	1,070	20	120	-	-	75	75	-	-	1,360
Coordinate Utilities										
200.00 - Obtain Necessary Storm Water Permits	10									10
200.15 - Utility Conflict Resolution										-
Total Coordinate Utilities	10	-	-	-	-	-	-	-	-	10
Obtain Permits, Agreements and Route Adoptions										
205.00 - Obtain Necessary SW Permits/Agmts		15				40	20			75
205.05 - Determine Required Permits			10							10
205.10 - Obtain Permits										-
205.10.05 – Army Corp Permit (404)			8							8
205.10.10 – USFS Permit			8							8
205.10.15 – US Coast Guard Permit										-
205.10.20 – DFG Permit (1601/1603)			8							8
205.10.25 – Coastal Dev Permit										-
205.10.30 – Loc Agcy Concurrence										-
205.10.40 – Waste Dischg (NPDES)										-
205.10.45 – USFWS Approval			8							8
205.10.50 – RWQCB Permit (401)			8							8
205.10.60 – Update Summary of Env Commit			8							8
205.10.95 – "Other" Permits										-
205.15 - Railroad Agreements										-
205.20.05 – Draft Fwy Agreement										-
205.20.10 – Review Draft Fwy Agree										-
205.20.15 – Prep Final Fwy Agree										-
205.20.20 – Execute Fwy Agreement										-
205.25 – Prep Agreement for Material Sites	10									10
205.35.05 – Prep & Exc Coop for Env	20	8								28
205.40.10 – New Conn & Rte Adopt										-
205.45 – MOU from TERO										-
Total Permits, Agree & Rte	30	23	58	-	-	40	20	-	-	171

WBS Task Activity Code	Senior/Gen	Env. Mgt.	Senior/ Biology	Senior/ Cultural	Noise/Air/Haz Waste	NPDES Work by Design	Storm Water	Hydrology	Land scape	Total
Prepare Draft PS&E										
230.05 - Prepare Draft Roadway Plans										-
230.00 - Prepare Draft PS & E	20					20	5			45
230.05.65 - Prepare Water Pollution Control Plans (SWPPP)										-
230.10.05 – Prepare Hwy Planting Plans										-
230.10.15 – Prepare Plant List										-
230.35 - Prepare Draft Specifications	20					10	10			40
230.35.10 – Dev Hwy Planting Specs										-
230.35.35 – Dev Water Poll Ctrl Specs										-
230.35.40 – Dev Erosion Control Specs										-
230.30.60 – Rev & Updt Proj Info Draft PS&E										-
230.40 - Prepare Draft Estimate						10	5			15
230.60 - Storm Water Data Report						10	10			20
Total Prepare Draft PS&E	40	-	-	-	-	50	30	-	-	120
Mitigate Environmental Impacts and Clean-up Hazardous Waste										
235.05 - Perform Env. Mitigation										-
235.05.05 – Hist Structures Mitig										-
235.05.10 – Archy & Cult Mitigation (Phase III/HRHP)										-
235.05.15 – Biological Mitigation			40							40
235.05.20 – Perform Env Mit R/W		8	10							18
235.05.25 – Paleontology Mitigation										-
235.10.10 – Surveys to Locate HW										-
235.10.15 – Conduct Detailed Invest										-
235.15 – Dev HW Management Plan										-
235.20 – Prepare HW PS&E										-
235.25 – Perform HW Clean-up										-
235.30 – Certify Freedom of HW										-
235.35 – Long Term Mitigation Mon			400							400
Mitigate Environmental Impacts and Clean-up Hazardous Waste (Continued)										
235.40 – Update Summary of Env Commit	10									10
Total Mitigation & HW Clean-up	10	8	450	-	-	-	-	-	-	468
Circulate, Review and Prepare Final District PS&E Package										
255.05 – Circ & Rev Draft Dist PS&E	10	4								14
255.10.25 - Update Technical Reports										-
255.15 – Env Reevaluation	100	6								106
255.20 - Final District PS & E						10	10			20
255.20.05 - Rev Plans for Stds Comp										-
255.40 - Prep Res Engs File	10									10
Total PS&E	120	10	-	-	-	10	10	-	-	150
Prepare Contract Documents										
260.15.15 - Env Cert at RTL	10	4		2						16
Total Prepare Contract Documents	10	4	-	2	-	-	-	-	-	16
Perform Construction Engineering and General Contract Administration										
270.05 - Prepare Resident Engineer's File						40	10			50
270.20.XX.50 – Technical Support		4								4
270.50 – Cert of Comp with Mit Req		4								4
270.55 – Perf Final Inspect & Rec Accept										-
270.70 – Update Summary of Env Commit		2								2
Total Const Engineering	-	10	-	-	-	40	10	-	-	60
Prepare and Administer Contract Change Orders										
285.05.XX.05 - Det Need for CCO										-
285.10.XX.95 – Prov Other Func Support										-
Total CCOs	-	-	-	-	-	-	-	-	-	-
Resolve Contract Claims										
290.35 – Provide Technical Support										-
Total Contract Claims	-	-	-	-	-	-	-	-	-	-
Accept Contract, Prepare Final Construction Estimate & Prepare Final Report										
295.35 – Prep Cert of Env Compliance		4								4
Total Final Construction	-	4	-	-	-	-	-	-	-	4
Total Project Hours	4,000	390	1,740	442	16	450	340	100	400	7,878

Attachment D

Right of Way Data Sheet

CLARIFICATION

When the request for Right of Way (ROW) Data Sheet and Preliminary Environmental Analysis Report (PEAR) were sent out, there were only two Project Study Report Expenditure Authorizations (EA), 0G690K & 0G800K. Subsequently, we've had to reorganize the Project Study Reports from two EA's which have 7 sub EA's to three EA's with no sub EA's. Because of this, EA 0G691K was added to the two original EA's to cover part of Route 18 (PM 17.52/17.90), Route 138 (PM 37.20/37.80), which was originally under 0G690K and Route 2 (PM 0.0/3.70), which was originally under 0G800K. Due to time constraints, the original request was processed since there were no changes to the route limits.

In relation to the above-mentioned changes you will find that for EA 0G691K there are two ROW Data Sheets and two Preliminary Environmental Analysis Reports.

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or replacement of existing culverts.
EA: 0G800K

From: MICHAEL S. ROMO
R/W Project Delivery

Subject: Current Estimated Right of Way Costs

We have completed an updated ROW data sheet for estimate of the right of way costs for the above-referenced project based on maps we received from you **July 13, 2005**, and the following assumptions and limiting conditions:

[ ] 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.

[ ] 2. The transportation facilities have not been sufficiently designed so that the estimator could determine the damages to any of the remainder parcels affected by the project.

[ ] 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.

[ ] 4. We have determined there are no right of way functional involvement in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 25 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 225), we will require a minimum of 12 months prior to the date of certification of the project. Either of these actions may reflect adversely on the District's other programs or our public image generally.

*TOTAL PROJECT HOURS FOR R/W: 81000

*NOTE: THESE HOURS ARE PRELIMINARY BASED ON THE INFORMATION PROVIDED WITH THE DATA SHEET REQUEST. HOURS ARE SUBJECT TO CHANGE AS NEW INFORMATION IS PROVIDED.

Attachments:
[XX] Right of Way Data Sheet
[XX] Utility Information Sheet
[XX] Railroad Information Sheet

EVNT RW	8-8-05
COST RW1 - 6	8-8-05
TEXT T1	8-8-05
SCAN	8-8-05
CLASS	
AGRE	
TPRC	

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or replacement of existing culverts.
EA: 0G800K

Subject: Updated Request for ROW data sheet.

1. Right of Way Cost Estimate:

			Value
A.	Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	$	370,000.00
B.	Acquisition of Offsite Mitigation. **None Requested.**	$	00.00
C.	Utility Relocation (State share)	$	00.00
D.	RAP	$	00.00
E.	Clearance/Demolition	$	00.00
F.	Title and Escrow Fees	$	00.00
G.	Project Permit Fees	$	00.00
H.	Condemnation Costs	$	00.00
I.	**Total R/W Estimate:**	$	**370,000.00**
J.	Construction Contract Work	$	00.00

1a. Real Property Services:

A.	Routine Maintenance (Object Code 058)	$	00.00
B.	Advertising Costs (Object Code 039)	$	00.00
C.	Utility Costs (Object Code 002)	$	00.00
D.	Total Real Property Services Estimate:	$	00.00

2. Anticipated Pypscan Date of Right of Way Certification 08/2008

3. Parcel Data:

Type	Dual/Appr	Utility Involvement
X ____	____	U4-1 ____
A ____	____	-2 ____
B 298	____	-3 ____
C ____	____	-4 ____
D ____	____	U5-7 12
E ____		-8 ____
F ____		-9 ____

Total 298

RR Involvement	No
C&M Agrmt	-
Svc Contract	-
Lic/RE/Clauses	-
Government Lands	Yes
Number of Parcels	150
Misc. R/W Work	0
RAP Displ	0
Clear/Demo	0
Const Permits	0
Condemnation	0
Permits to Enter-ENV	0

Areas: Right of Way: S.F. 89,400 (Est) M^2 8305
Excess: S.F. 0 M^2 0
No. Excess Land Parcels: 0

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or replacement of existing culverts.
EA: 0G800K

4. Are there major items of construction contract work?
Yes ___ No _X__ (If yes, explain.)

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). **No right of way required.** __X__

Type and Number of Parcels: Fee _____
Partial _____
Full _____
Easements __298__
Temporary __298__
Permanent _____

6. Is there an effect on assessed valuation?
Yes ___ Not Significant ___ No _X__ (If yes, explain.)

7. Are utility facilities or rights of way affected? Yes _X__ No ___
(If yes, attach Utility Information Sheet, Exhibit 4-EX-5.)

8. Are railroad facilities or rights of way affected? Yes __ No _X__
(If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)

9. Were any previously unidentified sites with hazardous waste and/or material found? Yes ___ None Evident _X__ (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)

10. Are RAP displacements required? Yes ___ No _X__(If yes, provide the following information.)

No. of single family ____ No. of business/nonprofit _____

No. of multi-family ____ No. of farms _____

Based on Draft/Final Relocation Impact Statement/Study dated _____, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

11. Are there material borrow and/or disposal sites required?
Yes ___ No _X__(If yes, explain.)

12. Are there potential relinquishments and/or abandonments?
Yes ___ No _X__(If yes, explain.)

13. Are there existing and/or potential Airspace sites?
Yes ___ No _X__ (If yes, explain.)

14. Indicate the anticipated Right of Way schedule and lead time requirements.
(Discuss if District proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

PYPSCAN lead time (from Maps to R/W to project certification) __25__months.

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or
replacement of existing culverts.
EA: 0G800K

15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?
Yes _X_ No ___ (If no, discuss.)

Evaluations prepared by:

Right of Way: Name VITO SANTAMATO Date 8/18/05

Railroad: Name BETTY BOBOSIK Date 8/18/05

Utilities: Name LAWRENCE KELLY Date 8/31/05

Government Lands: Name GARY SKOW Date 8/31/05

Property Management: Name KATHY CASEY Date 8/18/05

Reviewed By:

MICHAEL S. ROMO
Senior Right of Way Agent
Project Coordinator
San Bernardino Office
Southern Right of Way Region

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and I find this Data Sheet complete and current.

PATI SMITH
Right of Way Project Delivery Manager
San Bernardino Office
Southern Right of Way Region

Date 8/31/05

cc: Program Manager
Project Manager

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or
replacement of existing culverts.
EA: 0G800K

This utility estimate was prepared using "project specific" data and unit values. This information is not to be utilized for the updating or preparation of this, or any other Right of Way Cost Report or Utility Information Sheet.

UTILITY INFORMATION SHEET

1. Name of utility companies involved in project:

SR 2
Charter Communications
Southern California Edison Company
Southern California Water-Wrightwood
The Gas Company
Verizon

SR 38
Bear Valley Electric Service
Big Bear Area Regional Wastewater Agency
Charter Communications
City of Big Bear Lake, DWP
San Bernardino County Area 64
Snow Summit
Southwest Gas
Verizon

2. Types of facilities and agreements required:

Overhead cable
Overhead electric
Overhead and underground telephone
Underground gas
Underground sewer
Underground water

3. Additional information concerning utility involvement on this project. Is there any special circumstances/facilities requiring additional lead time?

This project involves drainage improvements consisting of relining or replacement of existing culverts at several locations on State Routes 2 and 38. There should be little or no impact on utilities per the PE. A field review of selected sites affirmed it unlikely that there would be any impact on utilities. Should the scope of the project change a revised Data Sheet may become necessary.

4. Potholing costs: Phase 1 funding:

None.

5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:
(Phase 9 funding) $ **0.00**

Utility Involvement

U4-1	____	U5-7	**12**
-2	____	-8	____
-3	____	-9	____
-4	____		

Prepared By: _____ Date 8/8/05

Lawrence Kelly
Right of Way Utility Coordinator

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or
replacement of existing culverts.
EA: 0G800K

RAILROAD AND GOVERNMENT LANDS INFORMATION SHEET

1. Describe railroad facilities or rights of way affected.

   None

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes ___ No X (If yes, explain.)

3. Discuss types of agreements and rights required from the railroads. Are grade crossings requiring service contracts, or grade separations requiring construction and maintenance agreements involved?
   None

4. Remarks (non-operating railroad right of way involved?):
   No Railroad in Project limits.

5. Is Government Lands involved? Yes X No ___

   If yes, number of parcels 150

   Agency Name and Explanation: 1. U.S. Forestry Service Temporary Construction easements required for culvert replacement.

6. PMCS Input Information

RR Involvement	No
C&M Agreement	-
SVC Contract	-
LIC/RE/Clauses	-
Government Lands	Yes
Number parcels	150

Prepared By: Betty Bobosik
BETTY BOBOSIK
Right of Way Railroad Coordinator

Date: 8/18/05

Prepared By: _____
GARY SKOW
Right of Way Government Lands Coordinator

Date: 8/31/05

To: JOHN M. ROGERS

Date: August 8, 2005
08-SBd-2PM 0.0-3.7
08-SBd-38-PM 47.50-53.34 & PM 54.35-59.36
Drainage improvements,relining or replacement of existing culverts.
EA: 0G800K

PROPERTY MANAGEMENT/EXCESS LAND INFORMATIONAL SHEET

WBS CODE	WBS ACTIVITY	NUMBER OF PARCELS	HOURS	COST
	PROPERTY MANAGEMENT		**NOT APPLICABLE X**	
195.40.05	Fair Market Rent Determinations (Residential)			
195.40.10	Fair Market Rent Determinations (Non-Residential)			
195.40.15	Regular Rental Property Management Historic House			
195.40.20	Property Maintenance and Rehabilitation (Rental Property) Historic House			
195.40.25	Property Maintenance and Rehabilitation (Non-Rental Property)			
195.40.30	Hazardous Waste and Hazardous Materials			
195.40.35	Transfer of Property to Clearance Status			
270.25.03	Secure Lease for Resident Engineer's Office Space or Trailer			
		Subtotal		
	EXCESS LAND		**NOT APPLICABLE X**	
195.45.05	Excess Land Inventory			
195.45.10	Excess Land Appraisal and Public Sale Estimate			
195.45.15	Excess land Inventory ("Roberti Bill)			
195.45.20	Excess Land Sales to $15,000			
195.45.25	Excess Land Sales from $15,001 to $500,000			
195.45.30	Excess Land Sales over $500,000			
195.45.35	CTC and AAC Coordination			
		Subtotal		

TOTAL HOURS (ONLY) _____

Date: 8/16/05

KATHY CASEY
Property Management
Excess Land

Attachment E

Transportation Management Plan

TRANSPORTATION MANAGEMENT PLAN (TMP) DATA SHEET 1 for PSR with DTM requirements for PSE and Construction Phase - This TMP is valid until one year from date of preparation, unless the project changes.

T:\DTM.TMP\project docs\SBd\038\050808 0G800K TMP Data Sheet 1.xls (includes signature/background sheet, estimate, table, and DTM requirements)

TEMPLATE: 0 TMP Data Sheet **revised 050705**.xls.

EA 08-0G800K DATE 8/8/05

08-SBd-38-76.44/80.47, 80.47/85.84, 87.46/95.53 KP
08-SBd-38-47.5/50.0, 50.0/53.34, 54.35/59.36 PM

Location: Various locations on 38 in San Bernardino County (total of 112 culverts)
Work: Reline or replace existing culverts

Documents available: TMP req. memo, list of locations, draft TMP

BACKGROUND INFORMATION:

DURATION: 160 WORKING DAYS
PROJECT COST: $4,200,000
TMP ESTIMATE: **$219,000** or 5.21% OF THE PROJECT COST
but use $400.000 until more detail available per PE

Construction period per WPS not available

EST START DATE	
EST END DATE	

IMPACT	High	Medium	Low	NA
STATE HWY	X			
LOCAL RD		X		
Ramps/connectors				X

Details:*(Explain high impact) Flagging. MAY involve trenching*

Prepared by Signature Sybille Phillips Date 8/8/05

Name Sybille Phillips
Title Transportation Engineer
Organization Caltrans
Telephone/FAX (909)383-4264/6429
email sybille.phillips@dot.ca.gov

Approved by Signature Sybille Phillips for Patrick Hsu Date 8/8/05

Patrick Hsu, P.E.
District Traffic Manager
Department of Transportation
District 8/Operations MS-B20
464 W 4th Street 6th Floor
909 383-4917, FAX 909 383-6429
patrick.hsu@dot.ca.gov

Prepared for REQUESTER (s), phone #: **Lydia D. Kean extn 4555**
cc: **John M Rogers extn 4624 (supervisor)**

Project Manager Emad Makar
Project Senior John M Rogers
HYahya, Ops Surveillance
MKar (D8 Callbox Coordinator routes to SAFEs as needed. Also concerned if loops for supercallboxes or census stations are damaged)
MBendelhoum (per his request)
PHsu
DKopulsky, Advance Planning SBd County projects ONLY
RMelgoza

TKasinga
DGreen
DMcClure
RCampos
VGau
MBoone
BWasser or LSartori
RTadi
DTM_Dist08@dot.ca.gov
SPhillips
MHess
UApabio
FZinnurayen (HQ Truck Services Manager for D8)
Steve Dickey (Southern Region Transportation Permits contact for D8)
HTupper@chp.ca.gov (D8 TMC CHP Officer)
JoWilson@chp.ca.gov (Inland Division Cozeep/Mazeep Coordinator)

TMP ESTIMATE	EA	08-0G800K	DATE	8/8/2005

1. Public Information	NO	[YES]	MAYBE	$32,000
2. Motorist Information Strategies	NO	[YES]	MAYBE	$46,000
3. Incident Management	NO	[YES]	MAYBE	$136,000
4. Construction Strategies	NO	[YES]	MAYBE	$5,000
5. Demand Management (DM)	NO	YES	[MAYBE]	$0
6. Alternate Route Strategies	NO	[YES]	MAYBE	$0
7. Other Strategies	NO	YES	[MAYBE]	$0
			TMP TOTAL	$ 219,000

TMP TABLE **EA** **08-0G800K** **DATE** **8/8/2005**

An X in the check box means you need to include this in the project unless staging, material, or work hour changes eliminate the need for the item. A ? in the box means TMP anticipates this - please check into this. A blank box means the item is not needed at this time based on the information received.

1 Public Information/Public Awareness Campaign (PAC) **COST**

BEES 066063A PAC Cost to be reduced by Public Affairs (PA) and Construction Liaison (CL) only. Show in Supplemental Work.

PA COST	CL COST
$ 16,000	$ 16,000

[X] Include Rideshare information in PA/CL project material to encourage vehicles reduction in work area

1.1 [X] Brochures and Mailers
1.2 [X] Media Releases (& minority media sources)
1.3 [?] Paid Advertising
1.4 [ ] Public Information Center/Kiosk
1.5 [X] Public Meetings/PAC Mtgs./Speakers Bureau (show cost also for room rental)
1.6 [?] Handdeliver notices to vicinity
1.7 [ ] Broadcast fax service
1.8 [ ] Telephone Hotline
1.9 [ ] 1-800-COMMUTE (the telephone number is shown on CS-Info signs) - contact Cyrin Kwong, 383-4256, to place msg into the 1800C telephone system.
1.10 [ ] Visual Information (videos, slide shows, etc.)
1.11 [X] Local cable TV and News
1.12 [ ] Traveler Information Systems (Internet)
1.13 [X] Internet, E-mail
1.14 Notification to targeted groups:
- [X] Revised Transit Schedules/maps
- [X] Rideshare organizations
- [?] schools
- [?] organizations representing people with disabilities
- [X] bicycle organizations

1.15 [ ] Include PA/CL/Consultant resources in WPS
1.16 [X] Commercial traffic reporters/feeds - e.g. brief Traffic Information people (TIP) group
1.17 [ ] Others

	PA COST	CL COST	
Subtotals	$ 16,000	$ 16,000	
SUBTOTAL			$32,000

2 Traveler Information Strategies

Project team needs to coordinate with Traffic Design!

2.1 [X] Existing Electronic Message Signs (Stationary) - list locations. See Note 5
EB 30 W of 30/330, EB 10 W of 10/30, for work for which 330 could be the detour.

[ ] New Installation (Stationary) - BEES 860530 CHANGEABLE MESSAGE SIGN SYSTEM - list locations. See Note 5

2.2 [X] Portable Changeable Message Signs (PCMS) Rental Lumpsum BEES 128650 in Supplemental Funds

These PCMS advise motorists to divert at remote advance decision points - outside the usual work limits. Unlike stationary CMS, you are allowed to use them for advance motorist information - e.g. a week ahead. Their placement may need to be cleared environmentally so that they can be included in plans and SSP later. They may be in addition to Traffic Design's PCMS for regular traffic handling in and next to a work area. $16,000

Placement Details: Use on route at least 7 days before start of flagging. Depending on work location, use at close or remote decision locations, e.g. 18/Big Bear Dam, near 38/Stanfield Cutoff, or WB 10 at 38, EB 10 W of 10/30 IC, EB 30 W of 30/330.

2.3 ☐ Extinguishable Signs (only shown because they are on the TMP Guidelines list. Usually found at Weigh Stations - Weigh Station "open/closed".)

2.4 Ground Mounted Signs / Fabric signs Note 2

- [X] C40/40A Double Fine Sign - black and white
- [ ] Regulatory speed signs
- [ ] SC6-4 (per MUTCD)
- [?] C-SPECIAL w/ SC6-2 PANEL ("Dates/Days/Hours/Expect delay") Use when conventional highways or local roads will be affected for longer periods. Use fabric signs if fast moving operation. To encourage traffic to detour so delay in your work area is less, use at advance location and add "work location".

- [ ] CS-INFO/1-800-COMMUTE Panel Sign Also see 1.9.
- [X] Blue and white Rideshare guide signs, including website (1-800-COMMUTE/www.commutesmart.info). **Need to be installed at the same time as the funding signs.**

2.5 ☐ Commercial Traffic Radio (usually only applicable in the Upper desert)

[X] Highway Advisory Radio (HAR) - Fixed. List locations here. They can be obtained from TMC Manager. See Note 5.

SBd-30/330

☐ Highway Advisory Radio - mobile (signs alerting motorists to the HAR will also be needed) Contact TMC manager for assistance with specifications to include portable HARs as bid item in the contract. To avoid FCC fines, CT Portable HAR cannot be used except for emergencies. See Note 5

List proposed locations here:

2.6 ☐ Lane Closure Web Site

2.7 [X] Caltrans Highway Information Network (CHIN)

2.8 [?] Radar Speed Message Sign (Specter sign) BEES 066064 (approx. EA @ $30,000) $ 30,000
If high approach speed is a concern

2.9 ☐ Bicycle and pedestrian information, e.g. Detour maps

2.10 ☐ Others

SUBTOTAL $46,000

3 Incident Management

3.1 [X] CHP's Construction or Maintenance Zone Enhanced Enforcement Program – COZEEP or MAZEEP. BEES 066061 - show under "State or Agency furnished" in the Cost Estimate. **SSP 12-225 has been deleted per HQ OE.** See note 1.

Check the LC hours and add CHP driving time to/from their office

Hourly Cozeep overtime loaded rate: $ 85

COZEEP - to protect active closures

160	10	1				$136,000
# of days	hours	# of officers	**nights**	**hours**	# of officers	

TMP TABLE (1 per car) **EA** **08-0G800K** (Remember - nights require 2 per car) **DATE** **8/8/2005**

ECOZEEP - to mitigate continuos restrictions. Add weekends days if needed.

# of days	hours	# of officers	**nights**	**hours**	see above	
						$0

(add weekends days as needed)

CHP TRAFFIC HANDLING - reduce delay by keeping traffic flowing and/or to enforce closures - total facility/structure/major traffic shifts/ramps/connectors/local road/extended closures. Freeway closures with local road detours may require 2 officers per intersection to direct traffic.

days	hours	# of officers	**nights**	**hours**	see above	
						$0

CHP Officer in TMC during major construction closures

days	hours	# of officers	
			$0

CHP Officer for Command Post during regional impact construction closures

days	hours	# of officers	
			$0

3.1 Total $136,000

3.2 BLANK

3.3 ☐ Freeway Service Patrol (FSP) for Construction (CFSP) $/hr/truck $55

BEES 066065 - show under "State or Agency furnished" in the Cost Estimate
Short duration or remote area CFSP usually is bid w much higher hourly rates. If enhancement of program FSP feasible, CFSP could tie into the lower long-term FSP rates.

FOR SERVICE **WITHIN** REGULAR FSP HOURS:

A # of trucks: ____ days & hrs: ____ ____ $0

FOR SERVICE **OUTSIDE** REGULAR FSP HOURS:

Extend Peak hour coverage

B # of trucks: ____ days & hrs: ____ ____ $0

Night support during structure freeway closures and major traffic shifts

C # of trucks: ____ days & hrs: ____ ____ $0

Weekend support

D # of trucks: ____ days & hrs: ____ ____ $0

Local agency (SAFE) support 8% of truck cost $0

CFSP CHP support 5% of truck cost $0

THIS % ONLY IF WITHIN REGULAR FSP HOURS AND AREA!

CFSP CHP support 20% of truck cost $0

% FOR B,C,D WHICH ARE OUTSIDE REGULAR FSP HOURS OR AREA!

Equipment/Supplies 10% $0
% of truck cost unless more detail available

☐ Cooperative Agreement or Task Order with SAFE
☐ Task Order with CHP (Statewide Master Agreement for FSP support).
Contact District FSP Coordinator for task orders.
☐ Service Contract

3.3 Total $0

3.4 ☐ CHP Helicopter/Airplane

3.5 ☐ Traffic Surveillance Stations for construction impact mitigation (loop detectors and CCTV)
Keep existing operational during construction
☐ New CCTV
☐ New loops

3.6 **Call Boxes - also see NOTE 4 in the Revisions & Notes tab**
☐ TEMPORARY INSTALLATION to mitigate impact ($4000/box/move from project funds to SAFE). Project Report/Design PE: Please discuss with the D8 Call box coordinator if it is feasible to keep this motorist aid available during construction. If it is not, please notify TMP, then other mitigation needs to be considered.

3.7 ☐ 911 Cellular Calls
3.8 ☐ Transportation Management Centers
3.9 ☐ ~~Traffic Management Teams (TMT) needed to assist w system diversion/impact reduction~~
3.10 ☐ On-site Traffic Advisor
3.11 ☐ Others

SUBTOTAL $ 136,000

4 Construction Strategies

Please contact Saleh Yadegari, 4232, to get Delay Calculations, lane closure charts, Table Z and Special events list. **Please tell him of any concerns/committments re special LC days, times, season, events; environmental restrictions; if work may be affected by snow and low or high temperatures.** E.g. desert heat may delay AC digout curing which may increase traffic impact when vehicles overheat in the queue; etc. IF traffic volumes vary significantly between seasons, consider including different closure charts to avoid a CCO later.

4.1 This TMP presumes work is planned as below. If different, TMP needs to be revised.
☒ Off peak
☒ Night except Friday night
☐ Weekend

4.2 Project Engineer is responsible to request closure charts for
☒ Flagging
☐ Shoulder
☒ Lane
☒ Street
☐ Ramp
☐ Connector
☐ Extended Weekend Closures
☐ Total Facility Closures

CAUTION: If the Lane Closure Chart (LCC) for full mainline closures (one or both directions on a highway or freeway) does not show a maximum number of allowable days, the PSE cannot be certified by DTM/TMP.

4.3 ☐ Project Phasing

4.4 [ ] Contra Flow (put traffic into opposing roadbed)

4.5 [ ] Reversible Lanes

4.6 [ ] K-Rail

[ ] BEES 152372 - Lateral shifting to open shoulder space early is anticipated. Please include supplemental work funds in the estimate to pay for the extra work. See Standard Specifications 12-4, Measurement and Payment. Discuss w Traffic Design!

[ ] Temporary Traffic Screens

4.7 [ ] Movable Barrier

4.8 [ ] Truck Traffic Restrictions

4.9 [X] Coordinate with adjacent construction and planned projects - also on detour routes.
Use SSP 07-850

4.10 [ ] BEES 066008 Incentives/Disincentives

4.11 [ ] Strictly enforce Constr. Progress Schedule (CPM)

4.12 [X] Specification 12-220

[X] Funds for paragraph 11 and 12:
BEES 066022 **(Traffic) Right of Way delay**. Show in supplemental work. If State (or agency) denies an approved closure or orders the contractor to pick it up early, this can be used to pay damages, e.g. for AC cold load, etc. $ 5,000

4.13 [?] **Delay Penalty (DP)** **Please contact Saleh Yadegari, 4232, regarding Delay Calculations.** DP is not related to the R/W Delay shown above!

4.14 [ ] Others

SUBTOTAL $ 5,000

5 Demand Management (DM)
Project team needs to coordinate with RCTC/SANBAG/CVAG

Traffic diversion may increase available work hours.

5.1 [ ] A coop will be executed

[ ] Instead of a coop, 15% is added to the cost of DM elements since the payment to the local agency will be routed through the contractor.

[ ] Instead of a coop, the local agency will make their own arrangements with RCTC/SANBAG.

[X] PA/CL need to inform commuters through RCTC/SANBAG. Funds part of PA/CL.

5.2 [ ] HOV Lanes/Ramps (New or Convert)

5.3 [ ] Park-and-Ride Lots

[?] LEASED SPACES (Are sponsored spaces feasible in exchange for signs and print coverage?)

5.4 [ ] Parking Management/Pricing (Coordination with local agency required)

5.5 [?] BEES 066069 Rideshare Promotion

5.6 Rideshare Incentives -
As far as D8 DTM.TMP knows, incentives to individuals cannot be paid by the State, however, State can pay for Local Transportation agency staff time, postage, cost of extra busses, etc.

[ ] Carpool/vanpool
[ ] Transit
[ ] Train
[ ] Light-Rail

5.7 BEES 066066

[ ] Public Transit Support/Improvements/Shuttle Service
[ ] School Shuttle Service

5.8 [?] Variable Work Hours

5.9 [?] Telecommute

5.10 [ ] Ramp Metering (Modify or new)

5.11 [X] Rideshare signs needed - unless already signed. See 2.4

5.12 ☐ Others

SUBTOTAL $ -

6 Alternate Route Strategies

Caution - signed detours may require environmental clearance

Traffic diversion may increase available work hours. Please work with Traffic Design.

6.1 ☐ Add Capacity to Freeway connector
6.2 ☐ Ramp Closures
6.3 ☐ Temporary Highway Lanes or Shoulder Use
6.4 ☐ Parking Restrictions
6.5 ☐ Street Improvements
- ☐ State R/W - Signals, Widen, etc.
- ☐ Local R/W - Signals, Widen, etc. Coop or Permit may be needed

6.6 ? Local Street USE - Coop or Permit may be needed
6.7 ☐ Traffic Control Officers (see 3.1 Cozeep)
6.8 ? Signed detour - using State routes
6.9 ? Signed detour - using local streets and roads
6.10 ? Adjust signals
6.11 ☐ Temporary bicycle or pedestrian facilities
6.12 ☐ Others

SUBTOTAL $ -

7 Other Strategies

7.1 ☐ Application of new technology
7.2 ☐ Innovative products
7.3 ☐ Others

SUBTOTAL $ -

TOTAL $ 219,000

DTM for PSE **EA 08-0G800K** **DATE 8/8/2005**

Assistant DTM must be invited by project team starting with the 65% Constructability reviews, in addition to TMP. DTM will review Plan Sheets showing the traffic handling for:

1 **Local area** - how local traffic will be routed around construction restrictions. For example, Riv-215 Linden Iowa Overcrossing replacement requires closure of that structure. How will local traffic be routed?

2 **Vicinity** - how highway and freeway traffic will be routed around construction restrictions and diverted. For example, the Riv-215 Linden Iowa Overcrossing replacement requires freeway closures. One of the elements needed would be PCMS on 60, 91 and 215 ahead of the preceeding exits. The goal is to divert motorists who know the area and therefore reduce the demand on the signed detour.

3 **Regional** - some work, such as 50% of lanes or connector/freeway closures, or major traffic shifts, etc., require diversion at remote approaches. For example, Riv-215 Linden Iowa Overcrossing replacement requires freeway closures. Therefore PCMS are needed around SBd-10/215, EB/WB 60, Riv-15/91, even NB 15/215 in Temecula to encourage motorists to take alternate freeways. Some projects may require diversion into other counties or even States. Projects adjacent to each other or on detour routes for other projects will need to coordinate their closures.

Please contact Dr. Ramakrishna Tadi, D8 Assistant DTM, 909 383-4241, or the DTM desk, 383-5911, DTM Dist08/D08/Caltrans/CAGov, if you need more information.

DTM for Construction **EA** **08-0G800K** **DATE** **8/8/2005**

DTM requires these items to approve closures:

1 Email from RE or Permit Inspector that they have reviewed and approved the Contractor's Contingency Plan. This plan shows the way the Contractor will deal with any problems which could prevent the timely opening of closures.

2 The Contractor Plansheets showing the elements which will be functional to divert traffic for the proposed work.

3 Depending on the work, the Caltrans or local agency Local Area, Vicinity, and Regional plan how to divert traffic. This shows which TOS elements and other resources such as Cozeep, Construction Freeway Service Patrol, Local Agency staff, etc., will be used and where. Potential TOS, TMC, ~~or TMT~~ use require the project team to get written consent from the TMC Manager during the PSE stage. Resources need to be committed as early as possible so that Construction can make them available to the TMC Manager, Unit 370. DTM.TMP, Unit 375, also requires resources during construction for TMP and DTM involvement.

4 Email from Requestor that any necessary public outreach is in progress. Requestor needs to contact PA and CL or the Maintenance Liaision. If a local agency is doing the work, their PA/CL staff is expected to do the outreach and coordinate with CT PA/CL.

Please contact Dr. Ramakrishna Tadi, D8 Assistant DTM, 909 383-4241, or the DTM desk, 383-5911, DTM Dist08/D08/Caltrans/CAGov, if you need more information.

Remember, DTM.TMP is unit 375 and not only needs hours in the early project phases, but also in 270, **especially for projects with complex closure approval.**

Attachment F

Storm Water Data Report

Dist-County-Route: 08-SBd-38
Kilometer Post (Post Mile) Limits: PM 47.50/53.34 & PM 54.35/59.36
Project Type: Drainage Improvements
EA: 0G800K
RU: 312
Program Identification: HB-42 (201.151)
Phases: x PID
o PA/ED
o PS&E

Regional Water Quality Control Board(s): Santa Ana

1.	Is the project required to consider incorporating Treatment BMPs?	Yes O	No X
2.	Does the project disturb more than 0.1 hectares of soil?	Yes O	No X
3.	Is the project part of a Common Plan of Development?	Yes O	No X
4.	Does the project potentially create permanent water quality impacts?	Yes O	No X
5.	Does the project require a notification of ADL reuse?	Yes O	No X

If the answer to any of the preceding questions is "Yes", prepare a Long Form - Storm Water Data Report.

Estimated Construction Start Date: May 2009 Construction Completion Date: March 2010

Separate Dewatering Permit (if yes, permit number) Yes O Permit # _____ No O N/A X

This Short Form - Storm Water Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

John M Rogers 8-15-05
[John M Rogers], Registered Project Engineer *Date*

I have reviewed the storm water quality design issues and find this report to be complete, current, and accurate:

Paul Lambert 8-15-05
[Paul Lambert], District/Regional SW Coordinator or Designee Date

STAMP
[Required for PS&E only]

AN 8/11/05

1. Project Description

- This Protective Betterment (HB-42) project is located in the County of San Bernardino in Big Bear City to Big Bear Lake on State Route 38 (SR-38) at various locations between PM 47.50 and PM 59.36 (see attached vicinity map). SR-18 is a 2-lane highway with 12-foot lanes and no shoulders. This project proposes to reline or replace existing culverts. At this stage we anticipate that majority of the culvert will be replace with slightly bigger pipe as consideration from Maintenance request. The decision to reline or replace will be determined in the design as specific data for each culvert becomes available. Depending on the number of culverts that will be relined the amount of soil disturbance may be small.
- As mentioned in the above project description, we anticipate that majority of the culverts will be replaced. For the portion where culverts will be relined, we estimated less than 30 square meters of soil disturbance per culvert location.
- The project limit falls within County of San Bernardino MS4 and urban MS4 (City of Big Bear Lake). Portions of the project are in a "high risk" area where contaminates may enter a domestic reservoir.

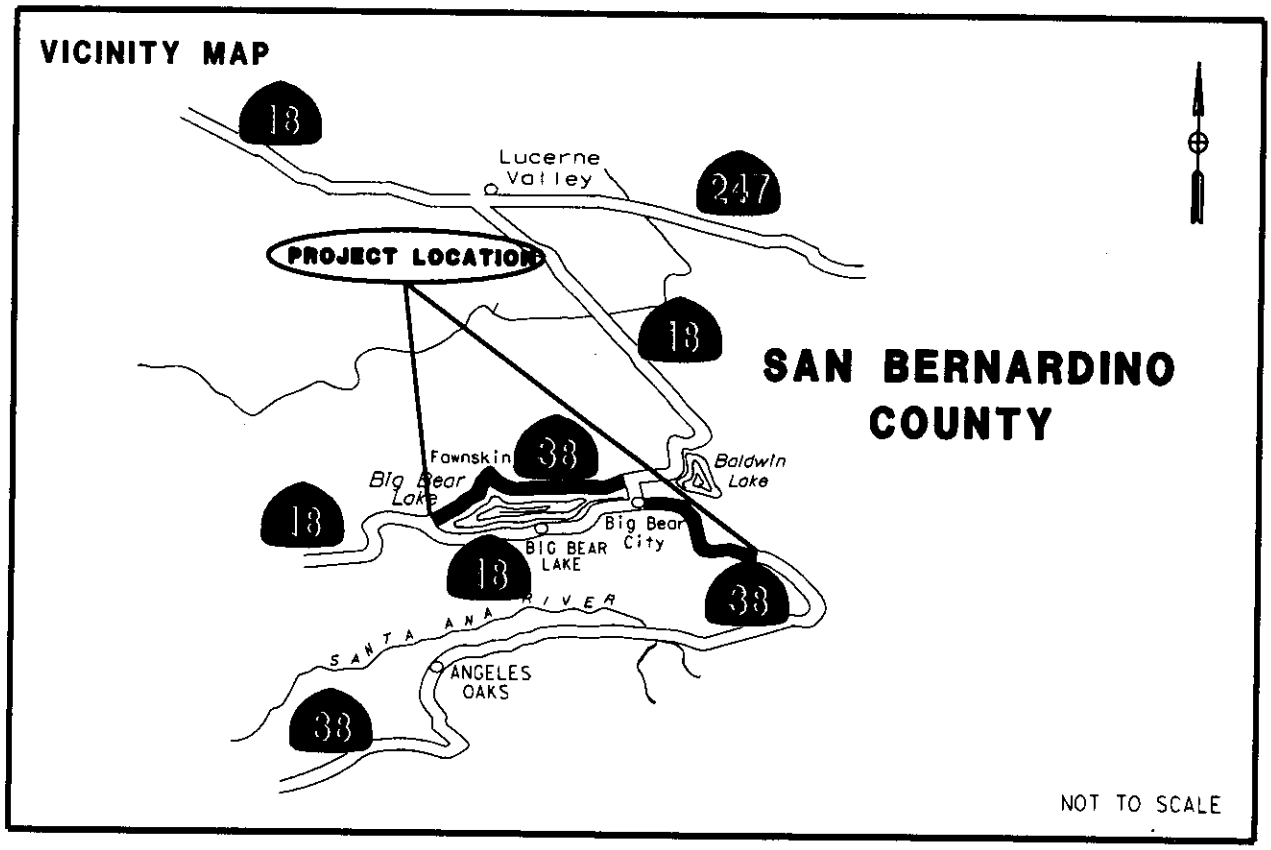
2. Construction Site BMPs

- We anticipate a WPCP will be required during construction.
- The following Construction Site BMPs have been selected to be incorporated into the contract documents: SS-5 (Soil Binders), SC-1 (Silt Fence), SC-7 (Street Sweeping & Vacuuming), NS-8 (Vehicle & Equipment Cleaning), NS-9 (Vehicle & Equipment Fueling), NS-10 (Vehicle & Equipment Maintenance), ~~WM-8 (Concrete Waste Management)~~, WM-1 (Material Delivery & Storage), WM-2 (Material Use), WM-4 (Spill Prevention & Control) and WM-5 (Solid Waste Management).
- The following Construction Site BMPs will be designated as separate Bid Line Items: SS-5 (Soil Binders), SC-1 (Silt Fence) & SC-7 (Street Sweeping & Vacuuming).
- No pertinent details are known that will impact the strategy used for estimating Construction Site BMPs.
- The SWDR for the PS&E phase will be reviewed by Dave Meress of the Construction NPDES Unit for his concurrence

REQUIRED ATTACHEMENTS

- Vicinity Map
- Evaluation Documentation Form

08-SBD-38-PM 47.50/53.34
& PM 54.35/59.36
AUGUST 2005
EA 0G800K



ON STATE ROUTE 38
AT VARIOUS LOCATIONS FROM ZACA DRIVE
TO SOUTH JUNCTION AT BIG BEAR DAM
IN THE COUNTY OF SAN BERNARDINO

APPENDIX E

Evaluation Documentation Form

See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPS

DATE 08/11/05
EA: 0G800K

NO.	CRITERIA	YES 3	NO 3	SUPPLEMENTAL INFORMATION FOR EXEMPTION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	√		Go to 2
2.	Is this an emergency or Safety project?		√	If **Yes**, go to 12. (Safety Projects must be funded from the 010 SHOPP Program). If **No**, continue to 3.
3.	Have TMDLs been established for surface waters within the project limits?	√		If **Yes**, contact the District/Regional NPDES coordinator to discuss the Department's participation in the TMDL (if Applicable), go to 11 or 4 (as determined by the NPDES Coordinator). *(Dist./Reg. SW Coordinator initials)* If **No**, continue to 4.
4.	Is the project within an urban MS4?	√		If **Yes**, continue to 5. *(County of San Bernardino & City of Big Bear Lake)* If **No**, go to 12.
5.	Is the project directly or indirectly discharging to surface waters?	√		If **Yes**, continue to 6. If **No**, go to 12.
6.	Is it a new facility or major reconstruction?		√	If **Yes**, continue to 8. If **No**, go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?	√		If **Yes**, continue to 8. If **No**, go to 10.
8.	Is the Disturbed Soil Area (DSA) created by the project greater than or equal to 1.2 hectares?		√	If **Yes**, continue to 11. If **No**, go to 9. _____ *(Total DSA quantity)*
9.	Is the project part of a Common Plan of Development?		√	If **Yes**, continue to 11. If **No**, go to 10.
10.	Are there any Pollution Control Requirements within the project limits? *(Contact your Dist./Reg. SW Coordinator)*		√	If **Yes**, continue to 11. If **No**, go to 12.
11.	Consider approved Treatment BMPs for the project.			See Sections 2.4 and either Section 5.5 or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.
12.	Project is not required to consider Treatment BMPs. _____ *(Dist./Reg. SW Coord. Initials)* _____ *(Project Engineer Initials)* _____ *(Date)*	√		Document for Project Files by completing this form, and attaching it to the SWDR.
13	End of checklist	√		

Construction Site BMP Consideration Form

Project Evaluation Process for the Consideration of Construction Site BMPs

DATE: 08/11/05
EA: 0G800K

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION
1.	Will construction of the project result in areas of disturbed soil as defined by the Project Planning and Design Guide (PPDG)?	✓		If **Yes**, Construction Site BMPs for Soil Stabilization (SS) will be required. Complete CS-1, Part 1. Continue to 2. If **No**, Continue to 3.
2.	Is there a potential for disturbed soil areas within the project to discharge to storm drain inlets, drainage ditches, areas outside the right of way, etc?	✓		If **Yes**, Construction Site BMPs for Sediment Control (SC) will be required. Complete CS-1, Part 2. Continue to 3.
3.	Is there a potential for sediment or construction related materials and wastes to be tracked offsite and deposited on private or public paved roads by construction vehicles and equipment?	✓		If **Yes**, Construction Site BMPs for Tracking Control (TC) will be required. Complete CS-1, Part 3. Continue to 4.
4.	Is there a potential for wind to transport soil and dust offsite during the period of construction?		✓	If **Yes**, Construction Site BMPs for Wind Erosion Control (WE) will be required. Complete CS-1, Part 4. Continue to 5.
5.	Is dewatering anticipated or will construction activities occur within or adjacent to a live channel or stream?	✓		If **Yes**, Construction Site BMPs for Non-Storm Water Management (NS) will be required. Complete CS-1, Part 5. Continue to 6.
6.	Will construction include saw-cutting, grinding, drilling, concrete or mortar mixing, hydro-demolition, blasting, sandblasting, painting, paving, or other activities that produce residues?	✓		If **Yes**, Construction Site BMPs for Non-Storm Water Management (NS) will be required. Complete CS-1, Part 5. Continue to 7.
7.	Are stockpiles of soil, construction related materials, and/or wastes anticipated?		✓	If **Yes**, Construction Site BMPs for Waste Management and Materials Pollution Control (WM) will be required. Complete CS-1, Part 6. Continue to 8.
8.	Is there a potential for construction related materials and wastes to have direct contact with precipitation; storm water run-on, or stormwater runoff; be dispersed by wind; be dumped and/or spilled into storm drain systems?	✓		If **Yes**, Construction Site BMPs for Waste Management and Materials Pollution Control (WM) will be required. Complete CS-1, Part 6. Continue to 9.
9.	End of checklist.		Document for Project Files by completing this form, and attaching it to the SWDR.	

PE to initialize after concurrence with Construction (PS&E only) *Date*

Construction Site BMPs
Checklist CS-1, Part 1

Prepared by: Lydia Kean Date: 8/11/05 District-Co-Route: 08-SBd-38
KP (PM): PM 47.50/53.34 & 54.35/59.36 EA: 0G800K
RWQCB: Santa Ana

Soil Stabilization

General Parameters

1. How many rainy seasons are anticipated between begin and end of construction?	one
2. What is the total disturbed soil area for the project? (ha/ac)	?
(a) How much of the project DSA consists of slopes 1V:4H or flatter? (ha/ac)	?
(b) How much of the project DSA consists of 1V:4H < slopes < 1V:2H? (ha/ac)	?
(c) How much of the project DSA consists of slopes 1V:2H and steeper? (ha/ac)	?
(d) How much of the project DSA consists of slopes with slope lengths longer then 6 m (20 ft)? (ha/ac)	-0-
3. What rainfall area does the project lie within? (Refer to Table 2-1 of the Construction Site Best Management Practices Manual)	6
4. Review the required combination of temporary soil stabilization and temporary sediment controls and barriers for area, slope inclinations, rainy and non-rainy season, and active and non-active disturbed soil areas. (Refer to Tables 2-2, and 2-3 of the Construction Site Best Management Practices Manual for Rainfall Area requirements.)	**X** Complete

Scheduling (SS-1)

5. Does the project have a duration of more then one rainy season and have disturbed soil area in excess of 10 ha (25 acres)?	o Yes **X** No
(a) Include multiple mobilizations (Move-in/Move-out) as a separate contract bid line item to implement permanent erosion control or revegetation work on slopes that are substantially complete. (Estimate at least 6 mobilizations for each additional rainy season. Designated Construction Representative may suggest an alternate number of mobilizations.)	o Complete
(b) Edit Order of Work specifications for permanent erosion control or revegetation work to be implemented on slopes that are substantially complete.	o Complete
(c) Edit permanent erosion control or revegetation specifications to require seeding and planting work to be performed when optimal.	o Complete

Preservation of Existing Vegetation (SS-2)

6. Do Environmentally Sensitive Areas (ESAs) exist within or adjacent to the project limits? (Verify the completion of DPP-1, Part 5)	o Yes **X** No

(a) Verify the protection of ESAs through delineation on all project plans. o Complete

(b) Protect from clearing and grubbing and other construction disturbance by enclosing the ESA perimeter with high visibility plastic fence or other BMP. o Complete

7. Are there areas of existing vegetation (mature trees, native vegetation, landscape planting, etc.) that need not be disturbed by project construction? Will areas designated for proposed treatment BMPs need protection (infiltration characteristics, vegetative cover, etc.)? (Coordinate with District Environmental and Construction to determine limits of work necessary to preserve existing vegetation to the maximum extent possible.) o Yes **X** No

(a) Designate as outside of limits of work (or designate as ESAs) and show on all project plans. o Complete

(b) Protect with high visibility plastic fence or other BMP. o Complete

8. If yes for 6, 7, or both, then designate ESA fencing as a separate contract bid line item, *if not already incorporated as part of design pollution prevention work (See DPP-1, Part 5).* o Complete

Slope Protection

9. Provide a soil stabilization BMP(s) appropriate for the DSA, slope steepness, slope length, and soil erodibility. (Consult with District/Regional Landscape Architect.)

(a) Select SS-3 (Hydraulic Mulch), SS-4 (Hydroseeding), **SS-5 (Soil Binders)**, SS-6 (Straw Mulch), SS-7 (Geotextiles, RECPs, Etc.), SS-8 (Wood Mulching), other BMPs or a combination to cover the DSA throughout the project's rainy season. **X** Complete

(b) Increase the quantities by 25% for each additional rainy season. (Designated Construction Representative may suggest an alternate increase.) **X** Complete

(c) Designate as a separate contract bid line item. **X** Complete

Slope Interrupter Devices

10. Provide slope interrupter devices for all slopes with slope lengths equal to or greater than of 6 m (20 ft) in length. (Consult with District/Regional Landscape Architect and Designated Construction Representative.) **N/A**

(a) Select SC-5 (Fiber Rolls) or other BMPs to protect slopes throughout the project's rainy season. o Complete

(b) For slope inclination of 1V:4H and flatter, SC-5 (Fiber Rolls) or other BMPs shall be placed along the contour and spaced 6.0 m (20 ft) on center. o Complete

(c) For slope inclination between 1V:4H and 1V:2H, SC-5 (Fiber Rolls) or other BMPs shall be placed along the contour and spaced 4.5 m (15 ft) on center. o Complete

(d) For slope inclination of 1V:2H and greater, SC-5 (Fiber Rolls) or other BMPs shall be placed along the contour and spaced 3.0 m (10 ft) on center. o Complete

(e) Increase the quantities by 25% for each additional rainy season. (Designated Construction Representative may suggest alternate increase.) o Complete

(f) Designate as a separate contract bid line item. o Complete

Channelized Flow

11. Identify locations within the project site where concentrated flow from stormwater runoff can erode areas of soil disturbance. Identify locations of concentrated flow that enters the site from outside of the right of way (off-site run-on). **N/A** o Complete

(a) Utilize SS-7 (Geotextiles, RECPs, etc.), SS-9 (Earth Dikes/Swales, Ditches), SS-10 (Outlet Protection/Velocity Dissipation), SS-11 (Slope Drains), SC-4 (Check Dams), or other BMPs to convey concentrated flows in a non-erosive manner. o Complete

(b) Designate as a separate contract bid line item. o Complete

Construction Site BMPs
Checklist CS-1, Part 2

Prepared by: Lydia Kean Date: 8/11/05 District-Co-Route: 08-SBd-38
KP (PM): PM 47.50/53.34 & 54.35/59.36 EA: 0G800K
RWQCB: Santa Ana

Sediment Control

Perimeter Controls - Run-off Control

1. Is there a potential for sediment laden sheet and concentrated flows to discharge offsite from runoff cleared and grubbed areas, below cut slopes, embankment slopes, etc.? — **X** Yes o No

   (a) Select linear sediment barrier such as **SC-1 (Silt Fence),** SC-5 (Fiber Rolls), SC-6 (Gravel Bag Berm), SC-8 (Sand Bag Barrier), SC-9 (Straw Bale Barrier), or a combination to protect wetlands, water courses, roads (paved and unpaved), construction activities, and adjacent properties. (Coordinate with District Construction for selection and preference of linear sediment barrier BMPs.) — **X** Complete

   (b) Increase the quantities by 25% for each additional rainy season. (Designated Construction Representative may suggest an alternate increase.) — **X** Complete

   (c) Designate as a separate contract bid line item. — **X** Complete

Perimeter Controls - Run-on Control

2. Do locations exist where sheet flow upslope of the project site and where concentrated flow upstream of the project site may contact DSA and construction activities? — o Yes **X** No

   (a) Utilize linear sediment barriers such as SS-9 (Earth Dike/Drainage Swales and Lined Ditches), SC-5 (Fiber Rolls), SC-6 (Gravel Bag Berm), SC-8 (Sand Bag Barrier), SC-9 (Straw Bale Barrier), or other BMPs to convey flows through and/or around the project site. (Coordinate with District Construction for selection and preference of perimeter control BMPs.) — o Complete

   (b) Designate as a separate contract bid line item. — o Complete

Storm Drain Inlets

3. Do existing or proposed drainage inlets exist within the project limits?	o Yes **X** No
(a) Select SC-10 (Storm Drain Inlet Protection) to protect municipal storm drain systems or receiving waters wetlands at each drainage inlet. (Coordinate with District Construction for selection and preference of inlet protection BMPs.)	o Complete
(b) Designate as a separate contract bid line item.	o Complete
4. Can existing or proposed drainage inlets utilize an excavated sediment trap as described in SC-10 (Storm Drain Inlet Protection- Type 2)?	o Yes **X** No
(a) Include with other types of SC-10 (Storm Drain Inlet Protection).	o Complete

Sediment/Desilting Basin (SC-2)

5. Does the project lie within a Rainfall Area where the required combination of temporary soil stabilization and sediment control BMPs includes desilting basins? (Refer to Tables 2-1, 2-2, and 2-3 of the Construction Site Best Management Practices Manual for Rainfall Area requirements.)	**X** Yes o No
(a) Consider feasibility for desilting basin allowing for available right-of-way within the project limits, topography, soil type, disturbed soil area within the watershed, and climate conditions. Document if the inclusion of sediment/desilting basins is infeasible.	**X** Complete
(b) If feasible, design desilting basin(s) per the guidance in SC-2 Sediment/ Desilting Basins of the Construction Site BMP Manual to maximize capture of sediment laden runoff.	o Complete **NOT FEASIBLE**
Designate as a separate contract bid item.	o Complete
6. Will the project benefit from the early implementation of proposed permanent Treatment BMPs? (Coordinate with District Construction.)	o Yes **X** No
(a) Edit Order of Work specifications for permanent treatment BMP work to be implemented in a manner that will allow its use as a construction site BMP.	o Complete

Sediment Trap (SC-3)

7. Can sediment traps be located within collected or channelized runoff from disturbed soil areas prior to discharge?	o Yes **X** No
(a) Design sediment traps in accordance with the Construction Site BMP Manual.	o Complete
(b) Designate as a separate contract bid line item.	o Complete

Construction Site BMPs
Checklist CS-1, Part 3

Prepared by: Lydia Kean Date: 8/11/05 District-Co-Route: 08-SBd-38
KP (PM): PM 47.50/53.34 & 54.35/59.36 EA: 0G800K
RWQCB: Santa Ana

Tracking Controls

Stabilized Construction Entrance/Exit (TC-1)

1. Are there points of entrance and exit from the project site to paved roads where mud and dirt could be transported offsite by construction equipment? (Coordinate with District Construction for selection and preference of tracking control BMPs.) — o Yes **X** No

   (a) Identify and designate these entrance/exit points as stabilized construction entrances (TC-1). — o Complete

   (b) Designate as a separate contract bid line item. — o Complete

Tire/Wheel Wash (TC-3)

1. Are site conditions anticipated that would require additional or modified tracking controls such as entrance/outlet tire wash? (Coordinate with District Construction.) — o Yes **X** No

   Designate as a separate contract bid line item. — o Complete

Stabilized Construction Roadway (TC-2)

3. Are temporary access roads necessary to access remote construction activity locations or to transport materials and equipment? (In addition to controlling dust and sediment tracking, access roads limit impact to sensitive areas by limiting ingress, and provide enhanced bearing capacity.) (Coordinate with District Construction.) — o Yes **X** No

   (a) Designate these temporary access roads as stabilized construction roadways (TC-2). — o Complete

   (b) Designate as a separate contract bid line item. — o Complete

Street Sweeping and Vacuuming (SC-7)

1. Is there a potential for tracked sediment or construction related residues to be transported offsite and deposited on public or private roads? (Coordinate with District Construction for preference of including street sweeping and vacuuming with tracking control BMPs.) — **X** Yes o No

   Designate as a separate contract bid line item. — **X** Complete

Construction Site BMPs
Checklist CS-1, Part 4

Prepared by:_____ Date: 8/11/05 District-Co-Route: 08-SBd-38
KP (PM): PM 47.50/53.34 & 54.35/59.36 EA: 0G800K
RWQCB: Santa Ana

Wind Erosion Controls

Wind Erosion Control (WE-1)

1. Is the project located in an area where standard dust control practices in accordance with Standard Specifications, Section 10: Dust Control, are anticipated to be inadequate during construction to prevent the transport of dust offsite by wind? o Yes o No
   (Note: Dust control by water truck application is paid for through the various items of work. Dust palliative, if it is included, is paid for as a separate item.)

   (a) Select SS-3 (Hydraulic Mulch), SS-4 (Hydroseeding), SS-5 (Soil Binders), SS-7 (Geotextiles, Plastic Covers, & Erosion Control Blankets/Mats), SS-8 (Wood Mulching) or a combination to cover the DSA subject to wind erosion year-round, especially when significant wind and dry conditions are anticipated during project construction. (Coordinate with District Construction for selection and preference of wind erosion control BMPs.) o Complete

   (b) Designate as a separate contract bid line item. o Complete

Construction Site BMPs
Checklist CS-1, Part 5

Prepared by: Lydia Kean Date: 8/11/05 District-Co-Route: 08-SBd-38
KP (PM): PM 47.50/53.34 & 54.35/59.36 EA: 0G800K
RWQCB: Santa Ana

Non-Storm Water Management

Temporary Stream Crossing (NS-4) & *Clear Water Diversion* (NS-5)

1. Will construction activities occur within a waterbody or watercourse such as a lake, wetland, or stream? (Coordinate with District Construction for selection and preference for stream crossing and clear water diversion BMPs.) — o Yes **X** No

   (a) Select from types offered in NS-4 (Temporary Stream Crossing) to provide access through watercourses consistent with permits and agreements.[1] — o Complete

   (b) Select from types offered in NS-5 (Clear Water Diversion) to divert watercourse consistent with permits and agreements.[1] — o Complete

   (c) Designate as a separate contract bid line item(s). — o Complete

Other Non-Storm Water Management BMPs

2. Are construction activities anticipated that will generate wastes or residues with the potential to discharge pollutants? — **X** Yes o No

   (a) Identify potential pollutants associated with the anticipated construction activity and select the corresponding BMP such as NS-1 (Water Conservation Practices), NS-2 (Dewatering Operations), NS-3 (Paving and Grinding Operations), NS-7 (Potable Water/Irrigation), **NS-8 (Vehicle and Equipment Cleaning), NS-9 (Vehicle and Equipment Fueling), NS-10 (Vehicle and Equipment Maintenance),** NS-11 (Pile Driving Operations), NS-12 (Concrete Curing), NS-13 (Material and Equipment Use Over Water), NS-14 (Concrete Finishing), and NS-14 (Structure Demolition/Removal Over or Adjacent to Water).[1] — **X** Complete

   (b) Verify that costs for non-storm water management BMPs are identified in the contract documents. Designate BMP as a separate contract bid line item if requested by Construction. — **X** Complete

1. Coordinate with District Environmental for consistency with US Army Corps of Engineers 404 permit and Dept. of Fish and Game 1601 Streambed alteration Agreements.

Construction Site BMPs
Checklist CS-1, Part 6

Prepared by: Lydia Kean Date: 8/11/05 District-Co-Route: 08-SBd-38
KP (PM): PM 47.50/53.34 & 54.35/59.36 EA: 0G800K
RWQCB: Santa Ana

Waste Management & Materials Pollution Control

Concrete Waste Management (WM-8)

1. Does the project include concrete pours or mortar mixing? — o Yes **X** No

   (a) Select from types offered in **WM-8 (Concrete Waste Management)** to provide concrete washout facilities. In addition, consider portable concrete washouts and vendor supplied concrete waste management services. (Coordinate with District Construction for selection and preference of waste management and materials pollution control BMPs.) — o Complete

   (b) Designate as a separate contract bid line item. — o Complete

Other Waste Management and Materials Pollution Controls

2. Are construction activities anticipated that will generate wastes or residues with the potential to discharge pollutants? — **X** Yes o No

   (a) Identify potential pollutants associated with the anticipated construction activity and select the corresponding BMP such as **WM-1 (Material Delivery and Storage), WM-2 (Material Use), WM-4 (Spill Prevention and Control), WM-5 (Solid Waste Management),** WM-6 (Hazardous Waste Management), WM-7 (Contaminated Soil Management), WM-9 (Sanitary/Septic Waste Management) and WM-10 (Liquid Waste Management) — **X** Complete

   (b) Verify that costs for waste management and materials pollution control BMPs are identified in the contract documents. Designate BMP as a separate contract bid line item if requested by Construction. — **X** Complete

Temporary Stockpiles (Soil, Materials, and Wastes)

3. Are stockpiles of soil, etc. anticipated during construction? — o Yes **X** No

   (a) Select WM-3 (Stockpile Management), SS-3 (Hydraulic Mulch), SS-4 (Hydroseeding), SS-5 (Soil Binders), SS-7 (Geotextiles, RECPs etc.), or a combination as appropriate to cover temporary stockpiles of soil, etc. — o Complete

   (b) Select linear sediment barrier such as SC-1 (Silt Fence), SC-5 (Fiber Rolls), SC-6 (Gravel Bag Berm), SC-8 (Sand Bag Barrier), SC-9 (Straw Bale Barrier), or a combination to encircle temporary stockpiles of soil, etc. (Coordinate with District Construction for selection and preference of BMPs related to stockpiles.) — o Complete

   (c) Designate as a separate contract bid line item. — o Complete

4. Is there a potential for dust and debris from construction material (fill material, etc.) and waste (concrete, contaminated soil, etc.) stockpiles to be transported offsite by wind? o Yes **X** No

   (a) Select SS-7, temporary cover, plastic sheeting or other BMP to cover stockpiles subject to wind erosion year-round, especially when significant wind and dry conditions are anticipated during project construction. (Coordinate with District Construction for selection and preference of wind erosion control BMPs.) o Complete

   (b) Designate as a separate contract bid line item. o Complete